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**Researches and Observations on Pelvic
Hæmatocele.**

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(Continued from page 82.)

Causes—Predisposing and Exciting.—Such decided statements as these, as well as the opinions of many other high and equally reliable authorities, being entirely in accordance with my own experience and observation, I feel warranted in considering—1st. Inflammation of the uterine appendages and its consequences, oftentimes the primary, and by far the most frequent among the *predisposing causes* of pelvic hæmatocele. 2d. Habitual constipation of the bowels, and morbid growths interfering with the free return of venous blood, and thereby producing a varicose condition of the vessels. 3d. A hæmorrhagic diathesis from a disordered state of the blood. 4th. Tubular, uterine, or vaginal occlusion, obstructing the normal secretion or giving rise to regurgitation through the Fallopian tubes. The immediate or *exciting causes* may be—1st. Sudden suppression of the menstrual, or a hæmorrhoidal discharge. 2d. Tenesmus or violent muscular exertion. 3d. Injuries by a fall or otherwise. 4th. Excessive coitus, and mental emotions tending to active congestion of the internal organs of generation.

Still another cause remains to be mentioned, which might, with propriety, be classed both as predisposing and exciting, namely, *extra-uterine pregnancy*.

To discuss at length the various points bearing upon this part of the subject, would not only

extend this paper far beyond its proposed limits, but perhaps detract from the practical tendency of my remarks. I will, therefore, pass on to the consideration of more prominent

Symptoms.—When the hæmorrhage takes place from the under surface of the ovary, or within the folds of the broad ligament, the patient, having previously suffered more than usual from pain in one or other iliac region, will complain suddenly of severe cramp in the lower portion of the bowels, accompanied or soon followed by tenesmus, and weight referred to the loins and sacrum; there may be painful and difficult micturition, and if the quantity of blood poured out be great, faintness, and even complete syncope may now take place; the skin assumes a pale or sometimes anæmic hue; the extremities become cold, the countenance anxious, pulse small and frequent, and the abdomen tympanitic, and very sensitive to pressure, particularly over the seat of the rupture. At this stage of the case, a vaginal examination will rarely fail to detect a tolerably firm and irregular tumor, somewhat painful to the touch, and situated directly behind, or to either side of the uterus. Before proceeding further, and in order to illustrate more clearly the symptoms in detail, I will now relate the case referred to in the beginning of this paper.

Case II.—Mrs. —, aged thirty-two years, of good constitution and sanguineous temperament, the mother of two children, aged respectively seven and three years, consulted me on the 4th of last September, on account of a "side ache," which she said had troubled her frequently for the last two years, particularly after exercise, such as walking, dancing, etc.

Until within the last three weeks, very moderate exercise was not usually followed by much inconvenience; but now, the shortest walk or least exertion brings it on, and added to this, she

had had of late occasional attacks of colic or "cramp pains" in the lower part of the abdomen, which, while they lasted, were very severe and "doubled her up."

She has never had any serious illness in her life, except typhoid fever about four years ago; her last labor was natural, as was also the former one; has never had any miscarriages, and always menstruated regularly up to the last "turn," which is now "one week past the time." When the pain is severe, she finds much difficulty in standing erect, and at all times feels more comfortable when the leg of the affected side is bent and the abdominal muscles relaxed.

The seat of pain is the right iliac fossa; percussion causes no distress, but deep pressure, a good deal of soreness, and an "*indescribable sick feeling at the stomach*;" appetite ordinary, pulse regular, or perhaps slightly accelerated, no pain or difficulty in micturition, and bowels generally constipated. Viewing these symptoms as clearly indicative of ovaritis, appropriate antiphlogistic treatment was prescribed, and after about three weeks she felt very much better, and described her pain and soreness as almost quite gone, but has had several returns of her colic pains.

On the 29th of September, without any apparent cause, she was taken with a most violent pain in the right lumbar region, extending at intervals along the track of the ureter, and great distress and difficulty in passing water; says she has noticed, for some days past, a good deal of sediment in the urine, and that the quantity voided was much less than in health, but the difficulty and scalding pain in emptying the bladder were felt this morning for the first time. Pulse 120, countenance anxious and indicative of much suffering, extremities cold, and great restlessness; the soreness and pain, heretofore confined to the iliac fossa, have now become much greater, and extend across to the hypogastrium, which is extremely tender on pressure.

The bowels having been opened by a large tepid water enema, counter-irritation, and local depletion by cupping over the principal seat of pain, tinct. opii and water per rectum, dry heat to the extremities, and ten drops of liq. potassæ in barley-water every four hours were now ordered. The urine was examined and found to present a highly acid reaction, and sp. grav. 1030, but neither heat, nitric acid, nor the microscope, revealed any other abnormal characters requiring special notice.

September 30.—Has got some sleep during the night and feels much easier, but still complains of burning pain and difficulty in passing water, which she has the desire to do constantly; has voided about four ounces during the last twelve hours; pulse 120, but softer; countenance more tranquil; extremities warm; tongue moist; abdomen soft; moderate tenderness over the right fossa and bladder, but deep pressure reveals nothing abnormal.

October 1.—The catamenia have appeared this morning, having been now about two months absent; feels much easier.

October 7.—During the last few days no important change in the condition of the patient was noticed; says her pain and difficulty in passing water still continue unabated; and, whether it may be from her frequent ineffectual efforts to relieve herself in this way, or some other cause, she has an idea that her womb may be "*out of place*." A vaginal examination was now made, without eliciting any further information, as the uterus was found in situ, and the adjacent parts in a normal condition. Pain over the kidney quite gone, and the menstrual flow stopped for the last twenty-four hours.

October 8.—Has spent a very restless night; pulse 130; tongue furred, but moist; countenance indicative of much suffering; complains of great pain in the right iliac region, *extending to the centre*; abdomen tympanitic, and very tender on percussion; micturition still difficult and painful; bowels have not been open for thirty-six hours. Ordered a warm water injection, twelve leeches, to be followed by warm fomentations, and hyd. chlorid. mit. gr. xii; opii, gr. vi. Div. in pilulæ sex; one to be given every three hours. I visited her at ten p.m., and found her much better; pain and tenderness greatly diminished, and pulse 120; the injection in the morning was followed by a copious evacuation from the bowels. Ordered the pills to be continued, and directed that the leeches should be repeated, in case the severe pain should return or the soreness increase.

October 9, ten a.m.—When calling to make my usual visit, I was informed that, about half an hour before my arrival, while making a violent effort to pass water, she was suddenly seized with a most excruciating pain in the back, loins, and pubic region, which she had compared to the "bearing pains" of labor, and which "continued, even now, without intermission." On entering the bed-room, I found her in great agony, and implor-

ing me to try some means of relieving her of this, the most dreadful pain she had yet suffered. Her countenance betrayed great anxiety; face covered with cold perspiration; skin somewhat anæmic; extremities cold; pulse 130 and small; frequent vomiting of bilious liquid; abdomen tympanitic; and percussion very painful on right side.

Examination per vaginam disclosed a tumor the size of a foetal head of six months, completely filling up the recto-uterine space, and pushing the uterus forward and upward against the pubes, where it seemed fixed and entirely immovable. The swelling was firm, slightly elastic to the touch, and very irregular and uneven, like the foetal surface of an engorged placenta; large arterial pulsations were noticed in two places, and in one spot it was very painful on pressure. On carrying the finger over its surface toward the pubes, a deep fissure was felt, bounded in front by the cervix, and reminding me of a case of retroversion which I had met with a short time previously. The finger, introduced into the rectum, came in contact with the same firm, unyielding mass, almost completely filling up the hollow of the sacrum.*

Ordered twelve leeches, as before, brandy and water to produce reaction, and suppositories composed of ext. belladonnæ and sulph. morphiæ, half a grain each, one to be introduced into the rectum every three hours so long as the pain and tenesmus continue.

Nine P.M.—Feels much relieved since ten minutes after using the first suppository, and *passes water freely, and without pain!* Countenance more tranquil; skin warm, and less pallid; pulse 120, and more volume; abdomen less tense, but still too tender to bear manipulation; vomiting very troublesome all the day. Omit the brandy and water, let her have beef-tea and suppositories *pro re nata*.

October 10.—Has passed a tolerably comfortable night; bowels moved and urine voided early this morning, without pain or difficulty; vomiting still distressing; complains greatly of burning in the stomach, toward its cardiac orifice; has had less relief by the suppositories, and if the interval between their use extend beyond three or four hours, severe pain in the back and tenesmus become intolerable; abdomen much less tympanitic; and now, for the first time, a large and well-

defined tumor can be felt, filling up the right fossa, and reaching upward nearly as high as the anterior superior spinous process. Like that in the lower pelvis, it is hard and cartilaginous to the feel, and very tender on pressure. Pulse 120; tongue moist.

Examination per vaginam.—The tumor in this region has become much more sensitive, and seems to occupy a greater space, pressing the uterus more upward and forward; but there is no noticeable increase in the temperature of the parts. The sound of Professor Simpson was now used for the purpose of ascertaining the exact position of the uterus, but there was no retroflexion or other malposition of this organ than that already noticed. The speculum was next introduced with some difficulty, but no change of color in the mucous membrane could be noticed. I now inserted the index finger of the right hand into the rectum, and the thumb into the vagina, both in contact with the tumor, and with the left hand placed firmly over its abdominal surface, tried to detect fluctuation, but failed.*

Ordered twelve more leeches to the hypogastrium, to be followed by warm fomentations; iced champagne *ad libitum*, and beef-tea and broth *per rectum*. To accomplish this latter part of the treatment, a flexible tube about fourteen inches long was attached to an ordinary enema apparatus, and easily carried beyond the stricture in the rectum.

October 11.—Patient more comfortable; much less tenderness over the abdominal tumor, and tympanitis is almost gone; in other respects about the same as at last report; the beef-tea and broth have been injected every four or five hours, and retained, and the bowels have been freely moved; the burning sensation still continues unabated, and there is constant nausea, and vomiting of a dark-brown and shreddy, but inodorous liquid, resembling somewhat the sediment of beef-tea, but rather darker in color. The following remedies were tried, in their turn, without producing the slightest relief from the vomiting, viz., subcarb. bismuth, bicarb. sodæ, creosote, strychnia, hydrocyanic acid, Indian hemp, morphine—the latter both by the stomach and endermically—and nitromuriatic acid. Thus for the succeeding ten or twelve days the treatment was entirely palliative; and as no remarkable phenomena further than what I have already referred

* At this stage of the case, Professor Bedford saw the patient in consultation with me.

* The "double touch" of Becamier.

to were observed during this interval, I need not prolong my report by repetitions.

October 23.—Finding my patient weak and exhausted, after a restless night, I determined to explore the tumor per vaginam, which I did by introducing the small trocar, as recommended by Professor Simpson and others. This operation (contrary to expectation) was not only attended by very severe pain, but proved otherwise most unsatisfactory, as *no fluid whatever passed through the canula, and its withdrawal required as much force as if it had entered a mass of India-rubber.*

The hope, which, up to this moment, never wholly forsook my patient, seemed now to quite desert her, and she sobbed despairingly. I endeavored to calm her by assuring her, as I had very frequently done before, that her disease was certainly not malignant, and that I still hoped for a favorable result.

For the following ten days nothing occurred worthy of remark; the vomiting continued almost incessantly, and she seemed to be getting gradually more exhausted.

November 3.—On making an examination of the tumor by the "double touch," before alluded to, an indistinct fluctuation could be detected, both in the posterior as well as the vaginal surface, but the space in either location was small—not more than the size of a ten-cent piece—and everywhere surrounding it could be felt the same firm mass. I now proposed to make another exploration, to which she assented, provided I would let her have chloroform.

Five P.M.—Met, by appointment, Dr. Crane, of Brooklyn, who, after a minute examination, felt satisfied as to the propriety of the proceeding, and, indeed, the utter hopelessness of the case without early relief.

The anæsthetic having been administered, the patient was placed on her back, with the hips resting on a firm cushion, and the legs flexed. The index finger of the left hand, and with it the canula, were now introduced into the rectum and brought in contact with the small spot where fluctuation was detected; the trocar was next inserted, and the tumor penetrated, when about two ounces of fluid escaped, having a dark-red color and a most offensive odor.* The canula was now removed and the finger again inserted,

when the spot from which this fluid came felt flat or concave, as if a small cyst had been emptied. Large and repeated injections of warm water into the rectum were ordered, and no further interference being then deemed advisable, she was left until the following morning.

Nov. 4.—Has spent a tolerably quiet night; does not experience any particular change in her feelings for better or worse, but appears very much exhausted, as she has not retained one teaspoonful of nourishment for many days; pulse 130, and very feeble; the abdominal portion of the tumor seems larger, but there is no increase of pain or tenderness over it; the surface from which the fluid was drawn has filled up, and presents the same characters as before the exploration.

It was now decided to repeat the operation of the preceding day, except that *instead of a small trocar I decided to use one of the largest size.* The result was a discharge of about six ounces of the same dark, bloody-looking liquid. The canula was now freely moved in every direction, for the purpose of breaking up any clots which the cyst might contain, but no more fluid escaped, and *the instrument was withdrawn.* Warm water injections were again ordered, and the patient kept as quiet as possible.

Nov. 5.—During the last twenty-four hours not less than *six pints* of the same offensive bloody discharge took place, causing the apartment, and in fact the whole house, to smell like a dissecting room, and continued still to flow uncontrolled. She expresses herself as perfectly free from pain, but dreadfully weak; vomiting has ceased, and she says her stomach is now "entirely settled," for the first time in three weeks. The most careful examination externally can detect no trace of a tumor, but *pressure over the iliac fossa increases the discharge per rectum.*

For the succeeding five or six days this flow continued almost incessantly, after which there was a gradual diminution, as well as a change in its color, which now assumed that of chocolate; nor was it until the 25th of November, three weeks after the first escape, that its flow entirely ceased. Under the use of iron, quinia, and generous diet, the patient rapidly recovered strength, and on the 29th of November a minute examination of the pelvic viscera revealed no trace of the former difficulty, except a thickened condition of the recto-vaginal septum. On the 12th of December she visited New York to at-

* The fluid was subjected to microscopical examination, and found to consist principally of blood globules for the most part altered, with here and there a trace of pus.

tend to some shopping, and on the 14th sailed with her husband in the steamer for Europe.

I have since heard from this patient, and she is in the enjoyment of excellent health.

I consider this case to have been one of subperitoneal hæmatocele of the most exaggerated type, the sole predisposing cause of which was chronic ovaritis, gradually producing a varicose condition of the veins, and, most likely, softening of the tissues, and requiring only that state of hyperæmia of the parts consequent upon an *acute* attack of peri-uterine as well as ovarian inflammation, to bring about rupture and extravasation. Had such an accident not occurred, the process of suppuration, perhaps already established, would have progressed and the case terminated as one of dangerous pelvic abscess. The early history of the case, the character and seat of the pain noticed at my first examination, and the *peculiar sickening sensation produced by deep pressure*, are all symptoms indicative of ovarian trouble.

But "how," it might be asked, "will you account for the singular train of symptoms noticed on the 29th of September, and simulating nephralgia, nephritis, and even the passage of renal calculi?" A glance at the anatomical arrangement of the surrounding parts, the origin, source, and distribution of the nervous and vascular supply, must result in a tolerably satisfactory answer to the query; because, at this time, (to quote from the report,) "the soreness and pain heretofore confined to the iliac fossa have now become much greater, and extend across to the hypogastrium, which is extremely tender on pressure."

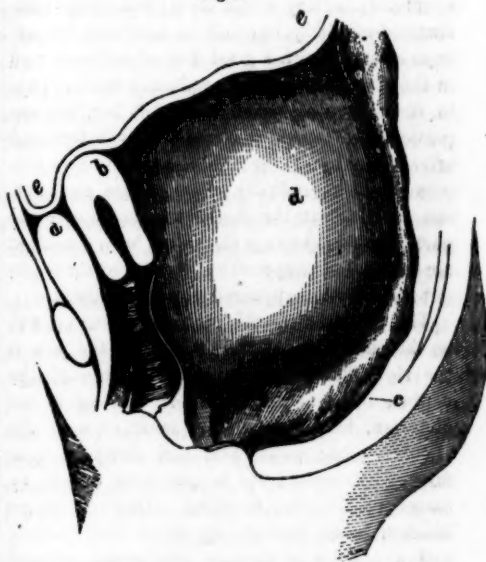
Again, the subperitoneal cellular tissue between the bladder and uterus, and, indeed, these organs themselves, became the seat of most acute inflammation, the effect of which was to retard, or perhaps entirely arrest, the flow of urine through the ureter, and by pressure and venous engorgement, to superinduce congestion of the kidney itself. Still stronger proof of correctness of this explanation is afforded by the total relief from pain in micturition observed almost immediately after the mechanical pressure was removed by rupture of the vessels, and extravasation into the surrounding cellular tissue.

That the effused blood was beneath the serous membrane, I infer from—1st. The mildness and short duration of the peritonitis. 2d. The absence of that complete and persistent collapse which I have noticed, once in perforation of the stomach,

and three times in rupture of the uterus, and which I apprehend must be the most prominent, if not a characteristic symptom, in all cases of intra-peritoneal hemorrhage. 3d. The immediate formation of a firm, unyielding tumor in the vagina. Lastly, the position of the uterus, which was "forward and upward against the pubes, where it seemed fixed and entirely immovable."

The accompanying sketch may serve to convey a clear impression of my theory regarding the size and relative position of the tumor in the lower pelvis.

Fig. 1.



a, Bladder; b, Uterus; c, Rectum; d, the Tumor; e, Peritoneum.

The symptoms observed in a case previously referred to will serve to illustrate pretty clearly (if I be correct in my judgment of that case) the manner in which a hæmatocele of limited extent may manifest itself; and as there must be every degree of severity, duration, and termination from such an example to that of the instance just related, it is not necessary to say more than simply allude to the fact.

When the flow of blood takes place into the retro-uterine cul-de-sac of peritoneum, the symptoms will, of course, be most alarming. The pain referred to the hypogastrium will be more intense, and the collapse more complete and enduring; the abdomen rapidly becomes tympanitic, and vomiting of brown or dark grumous liquid, now incessant, adds much to the distress of the pa-

tient; the pulse, if perceptible, is very small and rapid, and the features assume a hippocratic expression. Voisin, referring to the frequent absence of premonitory signs indicative of the occurrence, says that "the suddenness of the symptoms has sometimes led to the suspicion of poisoning."

The following case I assume to be an example of fatal intra-peritoneal extravasation:—

Case II.—On the 13th of last September I was sent for to see Mrs. L., aged thirty-four years, a widow, and the mother of two children aged respectively seven and five years; she was of delicate but apparently healthy constitution; had always menstruated regularly, but said her last three "turns" were attended with a good deal of suffering, and in the intervals she had complained much of pain in the right side, which never left her, but was particularly severe for some days before and after the "flow." For the last three days this pain has been gradually getting worse, until now she cannot bear the slightest pressure over the part affected; she says she would have consulted me sooner, but supposed every moment she might get relief by the appearance of her courses.

The patient lies with her legs drawn up, and on the affected side; the situation of the pain is the right iliac fossa, and a little toward the centre; there is no noticeable swelling of the abdomen, but it is acutely sensitive over the affected part; pulse 112, and sharp; tongue furred, but moist; the bowels were opened by castor oil in the morning. Ordered twelve leeches, to be followed by warm fomentations, and a powder containing two grains calomel and one of opium, every three hours. September 14th. Feels much relieved, and tenderness in the side almost gone; the catamenia appeared this morning; pulse 90, and soft. Within one week the patient expressed herself as perfectly well, and continued so up to the 18th of November.

The catamenial period succeeding her former illness passed over without pain or inconvenience, but this time it was attended with great distress, and suddenly ceased during the night, when her sufferings became greater, and soon after she was seized by a most acute "cramp" in the lower part of her abdomen and right side. A few hours after this occurrence I saw her, when she presented the appearance of a patient in the last stage of Asiatic cholera; the skin was of a bluish or leaden hue, extremities cold, coun-

tenance anxious; pulse 130, and thready; abdomen tympanitic and intensely painful to the touch, and vomiting constant. Stimulants and restoratives failed to produce reaction, and she died within a few hours. I regret to be unable to say more about this interesting case, as neither a post mortem nor even a vaginal examination would be permitted.

To be continued.

Poisoning by Aconite.

A Second Review of the Trial of John Hendrickson, Jr.

By DAVID A. WELLS,
Of Troy, New York.

My attention having been recently called to an imperfect and (as it seems to me) a wholly one-sided review of the trial of John Hendrickson, (convicted at Albany, New York, in 1853, of the charge of poisoning his wife by the administration of aconite,) communicated to the *REPORTER* of January 18th, 1862, by John Swinburne, M.D., I respectfully ask the privilege of submitting, through the columns of your journal, some additional statements relative to this celebrated trial. My object in making this request is twofold: first, that I may call the attention of the public anew to the scientific merits of this singular case, viewed from an opposite stand-point from that occupied by Dr. Swinburne; and secondly, that I may justify the conduct of the writer and his eminent chemical associates from the charges of "false" and "foolish philanthropy," "mercenary motives," and "gross ignorance," which have been freely made against them.

It is desirable, in the outset, briefly to notice certain points connected with the legal history of the case which in the review above referred to are imperfectly brought out, or altogether omitted.

The accused, John Hendrickson, Jr., was a young man, or rather boy, (for at the time of the alleged commission of the crime he was "under age,") of respectable family; dissipated, but good natured; and possessed of very slight educational acquirements. He married, at the age of eighteen, a young lady of seventeen, every way respectable, well educated, and intelligent. On the night of the 7th of March, 1853, the wife, after attending church in the evening, retired to bed with her husband, at her father-in-law's, between ten and eleven o'clock, complaining of a severe pain in her head, hips, and loins; and at two o'clock was

found by her husband dead, "occupying nearly the centre of the bed, lying at full length upon her back, with her hands either crossed or lying down by her side, the bedclothes covering her person." The inmates of the house, consisting of the husband's mother, brother, brother's wife, and some four or five other persons, were aroused and called into the room, and shortly afterward the nearest neighbors came in. Some restorative measures were attempted, but without effect. Subsequently, the cause of death being obscure, and an unfriendly feeling prevailing between the husband and his deceased wife's relatives, a coroner's inquest was held, and a *post-mortem* made thirty-six hours after death, by Dr. Swinburne. Four days after, the body was disinterred, and a further *post-mortem* dissection made—the first, for some reason not specified in the trial, having been incomplete. In the mean time it accidentally came to light that a druggist in Albany, a week or more previous, had sold to some unknown person an ounce of the ordinary tincture of aconite; and it was immediately taken for granted that young Hendrickson and the purchaser were one and the same person, and that the death of the wife was occasioned by the administration of the aconite thus obtained. It is also worthy of note (as was shown upon the trial) that the *post-mortem* was made under the impression or belief that the deceased had been poisoned with aconite, and that *post-mortem* appearances tending to substantiate this supposition were carefully sought for.

As the result of the coroner's inquest, Hendrickson was arrested, and subsequently tried for murder and convicted. On the trial, the Albany druggist who sold the aconite failed to identify the accused as the purchaser, and no further evidence was adduced that Hendrickson ever had aconite in his possession, or even knew of its properties. The theory of the prosecution, successfully maintained upon the trial, was, however, that the accused did purchase an ounce of the tincture of aconite; and further, that on the night of the 7th of March, 1853, after retiring to bed with his wife, he applied the bottle or phial containing the aconite to her mouth, and forcibly administered the poison—in consequence of which death ensued within three hours afterward. The stomach of the deceased being found *entirely* empty on the *post-mortem*, it was also assumed that, previous to death, violent vomiting had occurred, by which the contents of the stomach

were completely ejected. With respect to the evidence offered to sustain these hypotheses, we do not propose to offer any opinion. It is questionable, however, whether any considerable quantity of a burning, choking liquid, like tincture of aconite, could be forcibly poured down the throat of a strong adult person, or that the act could even be attempted without producing a self-preservant resistance and noise sufficient to have aroused the inmates of the contiguous rooms, or the whole household. The unimpeached testimony, however, of all the persons (some seven or eight in number) sleeping in the same house that night, was that no noise from vomiting or any other cause was heard by them; and the neighbors who came in, immediately after the death of Mrs. Hendrickson, testified that no traces of vomiting were observed by them, although the room and vessels were carefully examined. If we disbelieve this testimony, we are forced to the conclusion that some six or eight persons besides the accused were accessory to the murder—that they removed and effectually destroyed the matter ejected from the stomach of the deceased, the phial which contained the poison, and the sheets and garments, which, in the struggles of the victim, must have been somewhat stained by the poison or the vomit.

On the trial, the prosecution relied mainly for their medical evidence on Dr. Swinburne, the author of the review above noticed, who also made the *post-mortem*. He testified positively that the *post-mortem* appearances unmistakably indicated *acid* poison as the cause of death; and further, that he had no doubt the poison in question was "aconite, or the principle of aconite."

As the dissection of this testimony has been already made by two eminent pathologists, (to be referred to hereafter,) we will pass it by for the present, merely calling attention, in this connection, to two points of significance: first, that aconite, by the concurrent testimony of all recent toxicological writers, (*vide* Pereira, Fleming, Taylor, Thompson, and the French chemists Leiger and Hesser.) has very feeble or no *acid* properties; and secondly, that there is no principle better established in legal medicine, and more universally accepted by pathologists, than that *positive* proof of poisoning cannot be derived from *post-mortem* appearances, either on the external or internal parts of the body. And yet Dr. Swinburne, on cross-examination, thought

that "a person could give evidence of death by aconite merely from an inspection of the person after death;" also, that "inflammation never takes place, except from the presence of some irritant."

We come now to the chemical testimony offered by the prosecution, on which, more than all else, the conviction of the boy-prisoner was sought for and obtained. This was given by one James H. Salisbury, a person who had had no regular chemical education, and whose experience in chemical analysis was limited. He was for a time employed by the New York State Agricultural Society, but the published report of his chemical work is decidedly more complimentary to his skill than to his science.

The stomach and a portion of the intestines of the deceased, removed on the *post-mortem*, were placed in the hands of Salisbury for chemical examination, with the understanding that the principle of aconite was present in them. And here, before examining the analytical process followed, let us for a moment, adopting the theory of the prosecution, consider the circumstances under which the expected poison was to be recognized.

The amount of aconite assumed to have been purchased by the accused was an ounce of the tincture. Now the amount of aconitine contained in a fluid ounce of the tincture is exceedingly variable: the maximum which we find recorded by any authority is somewhat less than two grains, while the majority of pharmacologists assign to the ordinary tincture a much smaller proportion, as low as a tenth, or even a hundredth of a grain. Now, while it is not probable that the tincture sold by an ordinary druggist would have the maximum strength, we are willing to grant, for the sake of argument, that the accused had *two grains* of aconitine in his possession; we may further assume that no small part of this was lost in the attempt to force the fluid ounce down the throat of a vigorous, struggling, adult woman. Adopting still further the theory of the prosecution, that vomiting took place soon after the administration of the poison to a degree sufficient to clear entirely the stomach, (a circumstance which Dr. Swinburne swore there was no doubt of, although none of the ejected matter was ever recovered,) how much aconitine, we would ask, could possibly have been retained by the intestinal membranes for analytical detection and separation? Did it amount to so large a quantity as

the tenth of a grain? was it not probably much less than that?

Further, Dr. Salisbury testified that in the outset of the analysis he took small portions of the stomach, "its mucous surfaces, and a small portion of the duodenum," and with them tested carefully for prussic acid, arsenic, corrosive sublimate, the antimonial compounds, the mineral acids—muriatic, nitric, and sulphuric—then oxalic acid, morphine, strychnine, stramonine; also for "other poisons;" but without success. How much of the mucous membrane was used up, in these investigations, he does not tell us; but it seems evident that the small portion of the poison available in the outset for detection must in this way have been seriously diminished.

He next took additional portions of the stomach and duodenum, filtered, and mixed the solution with animal charcoal, and filtered again. To this solution he applied acid tests as follows: "I boiled a small portion of the solution with sulphuric acid; the solution was turned a deep port-wine red color. I then boiled a small portion of the solution with hydrochloric acid; this turned the solution to a light port-wine red color. Then boiled the solution with nitric acid; the solution remained clear. *From these tests I inferred the presence of aconitine.*" What induced such inference we are entirely at a loss to discover. Sulphuric acid boiled with aconitine gives a *dark-brown tint*, and not a *deep port-wine red color*; and animal matters boiled with sulphuric acid will give the latter color, *without the presence of aconitine.* (See *Taylor on Poisons*, Am. ed., p. 615.)

Prof. Emmons, of Albany, states, as the result of experiment, that "sulphuric acid boiled with the tincture of aconite, obtained from the same sample as that supposed to have been sold to Hendrickson, *lost most of its red color*, and became quite pale; but that when he added oil or animal matters to the mixture of aconite in question, he then obtained the same results as sworn to by Salisbury." There can, therefore, be no doubt whatever that the results arrived at by Salisbury were entirely due to the presence of organic matters, and not to aconitine.

But further, it will be observed that the liquor used in testing had been previously filtered through animal charcoal; a substance which is now well known to have the power of absorbing and retaining the organic alkaloids in solution, as well as coloring and odoriferous matters. If

there was, therefore, aconitine in the solution used by Salisbury, it remained in the animal charcoal, and was not contained in the liquid subsequently tested by him.

The next step taken by Salisbury was certainly a very singular one. Aconitine, it is well known, belongs to the class of *fixed*, and not to the volatile alkaloids. Salisbury, however, stated upon the trial that he did not know whether aconitine was or was not a fixed alkaloid, and, therefore, to make a sure thing of it, he adopted both suppositions. He divided the remaining portions of the viscera at his command into two equal parts: one of these he digested in alcohol, filtered, mixed with potassa, and *distilled*; setting the product aside for future use. What he obtained by this process we do not certainly know; it certainly was not aconitine: that would be a chemical impossibility, the alkaloid not being volatile; it was most probably ammonia.

Having thus wasted one-half of the analytical material at his disposal, Salisbury now proceeded to examine the other half, on the supposition that it contained a fixed (non-volatile) alkaloid. This was digested in alcohol, filtered, evaporated nearly to dryness; the alcoholic extract treated with pure distilled water, and filtered; the filtrate evaporated nearly to dryness; the water extract treated with dilute sulphuric acid and distilled water, and filtered; the solution treated with ammonia to a slight excess, and the precipitate formed redissolved in dilute sulphuric acid and distilled water. *The solution thus obtained was mixed with animal charcoal, agitated for some minutes, and then filtered.* To the filtrate ammonia was added in slight excess, and the precipitate thereby formed was washed with distilled water, and mixed with the result obtained in the former process by distillation; the whole making about "two-thirds of a teaspoonful."

It will be observed that the same fatal error was here committed as before, by using animal charcoal, a circumstance which, of itself, rendered the whole analytical process followed worthless.

It would naturally be supposed that our chemist at this point would have reduced a portion of the precipitate obtained to a crystalline state, in order to determine whether the result corresponded with the crystalline form of aconitine; he, however, did nothing of the kind, but states that he tasted of it, and found that it had a bitter taste, a sparkling (?) sensation at first, which turned into a numbness in a few minutes. The

whole remaining precipitate was then inclosed in beef-steak, and given to a cat; she appears to have eaten of it freely, and without repugnance; but about half an hour afterward she seemed to Dr. Salisbury to be somewhat uneasy, had a tendency to choke, and afterward to vomit; but this soon passed off, and the cat became as well as ever. A week after, Dr. S. administered to the *same* cat six drops of the tincture of aconite, pouring it down her throat; this dose killed the cat in a comparatively short time.

In his cross-examination, Dr. Salisbury stated that he believed he obtained in his process of analysis, *from one-twentieth to one-twenty-fifth of a grain of aconitine*; if this is so, it is certainly a very strange circumstance that, while one-twenty-fifth of a grain of aconitine did not injure the cat materially, six drops of the tincture (which could not have contained the one-hundredth part of a grain in maximum) should have proved fatal. Well did the counsel for the defense remark upon the trial "that the cat should have died (by the first experiment) out of deference to the doctor's opinion; or the doctor should have given up his opinion out of deference to the life of the cat."

With regard to the character of the precipitate formed, we will merely remark that it was in all probability *phosphate and lactate of lime*, derived from the animal fluids employed in the analysis; but as the physical and chemical characters of this precipitate were nowhere recorded, no certain affirmation can be made concerning it.

Upon testimony thus positively given by Dr. Salisbury, the prisoner was mainly convicted and sentenced to death. The scientific evidence brought forward on the trial to rebut that of Salisbury and Swinburne was weak and of little account. Two chemists were called for the defense, Dr. E. Emmons and Dr. Lawrence Reid, of New York. Neither of these, however, had had any great experience in toxicology, and under the cross-examination of the shrewd and brow-beating District Attorney, they became confused, doubtful of their own opinions, and as good as broke down. The trial, moreover, excited but comparatively little interest beyond the City of Albany and its vicinity, and but for an accidental circumstance, would probably have escaped in a great measure the attention of the scientific public.

It so happened, however, that a printed copy of the testimony accidentally fell into the hands

of the writer of this article, at that time a professional chemist in Boston, and was by him read with interest. This was after the conviction of the prisoner, and but a short time before the execution of his sentence. The testimony of Salisbury, the mode of proceeding, and the tests employed appearing to him inconclusive, incorrect, and marked by an absence of the most common precautions for securing accuracy, he submitted the pamphlet copy of the testimony to Dr. A. A. Hayes, of Boston, whose reputation as a chemist need not here be enlarged upon. Dr. Hayes' opinion coinciding with that of the writer, consultation was then had with Dr. C. T. Jackson, of Boston, and Dr. John Bacon, at that time Chemist to the Massachusetts General Hospital, and now Professor of Chemistry in the Medical College of Harvard University. These two gentlemen, after examining the whole subject, did not hesitate to give their opinion that the chemical conclusions sworn to by Salisbury were a scientific impossibility; and they also volunteered their services in furtherance of any investigation that might be instigated. Before, however, calling the attention of the authorities and the public to the subject, it was thought best to submit the case to the judgment of other distinguished chemists in different parts of the country, the result of which was, that the following certificates were prepared, signed, and forwarded to the counsel for the defense in Albany, to be by them laid before the Governor of the State, the judicial authorities, and the public generally:—

NEW YORK, April 21, 1854.

I have read the printed report of the trial of John Hendrickson, Jr., for the murder of his wife by poison, and have examined attentively the testimony of Dr. James H. Salisbury, in which his chemical experiments on the stomach of Mrs. Hendrickson are detailed, and am of opinion that the presence of aconitine was not demonstrated by those experiments.

CHARLES T. JACKSON, M.D.,
Assayer to the State of Massachusetts,
Geologist and Chemist.

My attention has been called to the chemical evidence given by Dr. James H. Salisbury in the trial of John Hendrickson, Jr., for the murder of his wife, and the expression of my opinion of its accordance with well-established facts has been asked.

The evidence given by Dr. Salisbury is both medical and chemical. The medical part I shall pass without notice, as the conjectures with which it abounds seem to derive their support from the stated results of the chemical experiments which he describes.

The chemical evidence is of two kinds:—

1st. That which is always *indicative*, founded on the reaction of bodies, called tests.

2d. Analysis, or the separation of the body indicated from others with which it may have been mixed.

If, in the supposed case, the application of tests is made consistent with the rules of experimenting or laboratory practice, the indications they afford are guides in the subsequent steps necessary in obtaining proof.

In the report of the trial, on page 50, is the statement of the course pursued in testing for various substances, and which led to the *inference* that aconitine was discovered.

This course is throughout a departure from those rules which apply to such cases, and the most common precautions for insuring accuracy have been neglected. The colorations which were seized upon as indications of aconitine are but the usual changes produced by the same agents upon the fluids obtained from digestions of portions of a healthy stomach.

The detection of aconitine in the fluids operated on is not a matter dependent on skill; it is chemically an impossibility, from the known character of the body itself. Turning to the so-called analysis, the first point which arrests attention is the indecision on the part of the experimenter, whether aconite is or is not volatile.

This leads to the adoption of two distinct processes for the separation of aconitine before any proofs have been obtained of its existence in the fluid.

The first of the processes would ordinarily give, as a final product, *ammonia*.

In the second, so many inconsistencies appear that I must charitably conclude that it is incorrectly reported. But some result was obtained, and it accords with experience, that both *phosphate* and *lactate of lime* would have been carried from the fluids of the stomach and organs, and would have appeared as the precipitate described. At this point in the analysis, the most convincing evidence might have been accumulated.

A substance removed from nearly every other body offered itself for examination undisguised. Here, when the chemical methods applied would have answered all questions and forever silenced all doubts, we find the subject left unexamined further, chemically.

In expressing an opinion on this evidence, I am compelled to state that no chemical result has been described which is evidence of the existence of aconitine, or its compounds, in the fluids or organs submitted to examination.

Respectfully,

AUG. A. HAYES, M.D.,
Assayer to State of Massachusetts.

No. 16 Boylston St., Boston, 18th April, 1854.

Having read the evidence given by Dr. Salisbury, at the trial of John Hendrickson, Jr., as reported by Barnes & Havenor, I fully concur with the above opinion.

JOHN BACON, JR., M.D.,
Chemist to Mass. General Hospital.

I have carefully examined the testimony as given by Messrs. Salisbury and Swinburne, and fully concur in the above opinion.

DAVID A. WELLS, Chemist.

Boston, April 18, 1854.

We, the undersigned, have examined the testimony of Dr. Salisbury, touching the case of Hendrickson, and the evidence of the presence of aconite as inferred from the chemical tests and examinations given in the report of Barnes & Havenor, and we fully concur in the above opinion of Dr. A. A. Hayes.

B. SILLIMAN, Sr., JAMES D. DANA, B. SILLIMAN, Jr., JOHN A. PORTER,	} Yale College.
JOHN TORREY, Prof. of Chemistry, College of Phys. and Surgeons, N. Y., W. H. ELLET, late Prof. of Chemistry, etc., South Carolina College. JAMES R. CHILTON, M.D., Chemist, EDWARD N. KENT, Chemist,	
	} New York.

NEW HAVEN, April 20, 1854.

The following gentlemen also expressed concurrence with the opinion given by Dr. Hayes respecting the unreliability of the testimony of Salisbury: J. Laurence Smith, M.D., Professor of Chemistry, Medical College, Louisville, Ky.; Prof. Joseph Henry, Smithsonian Institution, Washington, D. C.; Prof. A. D. Bache, U. S. Coast Survey; L. D. Gale, M.D., and George Schaeffer, M.D., (then) Chemical Examiners, U. S. Patent Office; Henry Wurtz, (since) Chemical Examiner U. S. Patent Office, and Messrs. Bunce and Craw, of the Yale Analytical Laboratory.

Copies of these certificates, published in the *Albany Evening Journal* of April 29th, 1854, were prefaced by the following letter:—

Boston, April 12th, 1854.

THURLOW WEED, Esq., *Editor of Evening Journal.*

DEAR SIR:—As the case of the unfortunate man, John Hendrickson, Jr., has now been acted upon by the highest courts, and appears to be rapidly approaching a dreadful termination, I deem it proper that the public, who have taken a deep interest in this case from its commencement, should be rightly informed respecting the opinions entertained by almost all the chemists of the country in regard to the scientific evidence upon which the prisoner was convicted.

The testimony of Drs. Salisbury and Swinburne, as reported by Messrs. Barnes and Havenor, has been examined or submitted to the following gentlemen for opinion, as practical chemists or scientific experts: Dr. A. A. Hayes and Chas. T. Jackson, State Assayers of Massachusetts; Prof. Benj. Silliman, Jr., of New Haven; Prof. J. Laurence Smith, of Louisville, Ky.; Drs. Torrey and Chilton and Mr. Wurtz, of New York; Messrs. Craw and Bunce, of New Haven; Dr. L. D. Gale, Chemical Examiner of the Patent Office; Prof. Schaeffer, of the Patent Office; Dr. A. D. Bache, Superintendent of U. S. Coast Survey; and Prof. Joseph Henry, of the Smithsonian Institution, Washington.

It is the opinion of all these gentlemen, to which I would also subscribe my own, that Dr. Salisbury was entirely mistaken; and that by no possibility could he, by the process described in the reported testimony, have detected aconite, even had it been present in ten times the quantity alleged to have been administered. In regard to the guilt or inno-

cence of the prisoner we express no opinion; we have only looked at the scientific testimony, which we believe to be entirely unreliable, and this opinion we are prepared to sustain to any reasonable extent.

Under these circumstances, it is due to every claim of justice, science, and humanity that some investigation should yet be made by the constituted authorities. To execute John Hendrickson, Jr., without such an inquiry, would be nothing more nor less than a judicial murder. Trusting that these remarks will at least awaken public attention to this important subject, and reminding you that it is better that ten guilty should escape rather than one innocent should perish,

I remain yours, very respectfully,

DAVID A. WELLS.

In connection with the above correspondence and certificates, a statement, addressed to the Executive of the State of New York by Dr. Emmons, one of the chemical witnesses for the defense, was published to the effect: 1st. That he had since the trial repeated the acid tests made by Salisbury on an alcoholic solution of pure aconitine, and had been unable to verify the results sworn to. 2d. That the tincture of aconite, of the kind sold by the Albany druggists, did not, upon analysis, yield so large a quantity of aconitine as the one twenty-fifth of a grain to the fluid ounce, the amount indeed falling short of the one one-hundredth of a grain. 3d. That the aconite contained in the tincture sold by the Albany druggists was proved by experiment to be entirely removed by agitation with, and filtration through, animal charcoal. A statement of similar import was also published by Dr. Lawrence Reid, another of the chemical witnesses who appeared for the defense on the trial.

In the mean time, pending the above correspondence and chemical consultation, the medical testimony of Swinburne and his associates attracted the attention of members of the profession in New York City and elsewhere, and elicited an almost unanimous sentiment of disapproval and remonstrance from both societies and individuals.

The New York Pathological Society forwarded to the authorities at Albany, and also caused to be published, the following official expression of their opinion:—

Extract from the Minutes of the New York Pathological Society, Regular Meeting, April 26th, 1854.

Dr. Metcalf offered the following resolution:—

Resolved, That the statement, made by Dr. Swinburne, as printed in the report of the trial of Hendrickson by Barnes and Havenor, Albany, 1853,

concerning the post-mortem appearances, as described by him in the case of Mrs. Hendrickson, in nowise justify the opinion that death was preceded by vomiting, or was caused by the administration of aconite; such appearances, especially those relating to the condition of the stomach, being often found in post-mortem examinations when no vomiting had occurred, and when no aconite had been taken before death.

Resolved, That the post-mortem examination, as detailed by Dr. Swinburne, is faulty, wanting in detail as regards the condition of several important organs, and omitting altogether to examine the trachea and larynx, affections of which are known to produce sudden death.

The resolutions were seconded by Dr. C. D. Smith, and after a general expression of opinion by the members of the Society, were unanimously adopted.

We certify the above to be a correct transcript from the minutes.

JACKSON BOLTON, M.D.,

President of the New York Pathological Society.

J. FOSTER JENKINS, M.D.,

Secretary N. Y. P. S.

About the same time, also, the following letter was addressed to Prof. T. Romeyn Beck, of Albany, by Alonzo Clark, M.D., of New York:—

DEAR SIR:—A pamphlet, entitled a *Trial of John Hendrickson, Jr., for the Murder of his Wife, Maria*, published by David M. Barnes and W. S. Havenor, Albany, 1853, has been put into my hands, with the request that I would examine the medical testimony and express to you an opinion on two points, namely: 1st. Whether the post-mortem appearances, as there reported, authorize the conclusion that Mrs. Hendrickson came to her death by a poisonous dose of aconite. 2d. Whether these post-mortem appearances sustained the opinion that she had vomited during the last hours of her life. I feel strongly the impropriety of assuming to sit in judgment on the deliberations of a high tribunal that had fully considered these questions, and had given its verdict and its sentence in full view of all the responsibilities with which those solemn acts were involved. I was, therefore, reluctant to undertake the task. But when I learned that the application was indorsed by your approval, I could not but feel that the service asked of me was justified by some good reason, and I consented to perform it. I have read the whole of the medical testimony recorded in this pamphlet—the most important portions of it carefully—and I cannot but confess to you, my dear doctor, that I am pained and oppressed with the conviction that the medical witnesses for the prosecution have, in a main point of this case, abused the confidence with which criminal courts so often compliment the man of science. I do not say that they have procured the condemnation of an innocent man. With the guilt or innocence of the condemned I have nothing to do; but I am fully persuaded that the inferential opinions touching both these questions, as expressed by these medical wit-

nesses, are not warranted by the facts presented in their testimony. Had the question been—the presence of aconite in blood, stomach, and tissues being admitted—do the post-mortem appearances sustain such an admission? their affirmative answer would have met with universal approval. But I understand them to assert in substance that these appearances, unaided by chemical investigation, are of themselves alone evidence of poisoning. I cannot see the grounds for such a conclusion. The condition of the stomach, intestines, gall-bladder, urinary bladder, muscular system and face, on which this grave deduction was based, do not belong to poisoning alone. I would not criticise unjustly this testimony; yet it is perhaps right to say that, besides this hardy inference, there are two or three propositions from the first medical witness, on page 34, that are so new to me, and at the same time so improbable, that it is difficult to persuade myself that they are correctly reported.

It is, however, no part of my present purpose to analyze this testimony. In short, then, independent of the chemical investigation, I do not find in the reported post-mortem appearances any sufficient ground for believing that Mrs. Hendrickson's death was produced by aconite or by any other administered poison. I cannot see how this conclusion could be effected in any manner by the certainties that the woman did or did not vomit, so far as its scientific relations are concerned; but as it appears in the medical testimony that "one of the reasons for thinking that she died of poison was her having vomited," and as the husband is believed to have concealed all evidence of this effect of his crime, I can easily see that with the judge and jury the fact of vomiting may have been one of the cardinal points in the trial. The congested and contracted stomach, covered with reddish mucus, the contracted and congested duodenum, the empty state of the small intestines, the half-emptied gall-bladder, the extreme pallor of the face, the slightly swollen tongue; submit the facts to a jury of intelligent physicians, withhold from them the knowledge of previous chemical investigation, and I believe their unanimous verdict would be that the facts afforded no evidence that vomiting had occurred before death.

My own conviction is so strong on this point that I cannot suppress the expression of my surprise and sorrow that any respectable physician should have felt himself authorized to urge the opposite conclusion. My answer, then, to the second question is, that the post-mortem appearances do not, in my opinion, justify the inference that Mrs. Hendrickson had vomited during the last hours of her life. Finally, on the supposition that this poor woman did not die of poisoning, the natural inquiry is, of what disease did she die? The post-mortem examination did not enable the medical witnesses to answer this hypothetical question; but so far as it is reported, this examination, in my view, falls far short of the completeness which the vital issues at stake demanded. It is easy to form conjectures, and in this case it is as useless as it is easy. I will, therefore, hint at only one. Had it occurred to the chemist to examine the blood for urea; had the brain been examined before the thoracic vessels were cut; had the condition of the kidneys been thoroughly investigated, and their cells inspected

with a microscope; it is possible—mark, I do not say it is probable—that the case might have been relieved from one of its heaviest embarrassments. Should you desire my reasons for these opinions more fully, please inform me.

With highest respect,
A. CLARK,
Professor of Pathological Anatomy, New York.

This letter of Professor Clark, published in the *Albany Evening Journal* of April 29th, 1854, was also accompanied by the following expressions of opinion from members of the medical profession in the City of Albany:—

I was present at the trial of John Hendrickson for the murder of his wife, during a part of the examination of Dr. Swinburne, and have read the report of the trial, and can fully concur in the opinion of Dr. A. Clark, expressed in the above letter.

ALDEN MARCH, M.D.,
Professor of Surgery.

ALBANY, April 26, 1854.

I have read the report of the trial of John Hendrickson, by Barnes and Havenor, and have also read the opinion of Alonzo Clark, M.D., and do concur fully therein.

P. VAN OLINDA, M.D.

ALBANY, April 27, 1854.

I concur fully in the opinion expressed in the above by Dr. A. Clark.

MASON F. COGSWELL, M.D.

ALBANY, April 27, 1854.

I have read the letter of Professor Clark, and concur fully in the opinion and conclusion therein expressed.

THOMAS W. HUN, M.D.,
Professor of Physiology and Materia Medica.

ALBANY, April 27, 1854.

I have read the testimony in the trial of John Hendrickson, Jr., as published by Barnes and Havenor, and concur in the opinion as expressed by Dr. A. Clark.

JAS. H. ARMSBY, M.D.,
Professor of Anatomy.

ALBANY, April 27, 1854.

From an examination of the testimony in the trial of John Hendrickson, Jr., and also the letter of Dr. A. Clark, of New York, I am fully satisfied that the views of the letter are correct.

J. P. BOYD, M.D.

ALBANY, April 27, 1854.

I have read the above letter of Professor Clark; I also attended the trial of Hendrickson; and do fully concur in the conclusions above referred to of Professor Clark.

BARENT P. STAATS, M.D.

ALBANY, April 27, 1854.

I have read the trial of John Hendrickson, Jr., both as reported in the newspapers and subsequently in the pamphlet form, and am of opinion, from what I know on the subject, that the presence of *aconitine* was not proved. Having frequently expressed the opinion since the conclusion of the trial, I do not decline to put it in writing.

T. ROMEYN BECK.

ALBANY, April 27, 1854.

It might naturally be supposed that the publication of such an array of chemical and medical opinions, emanating in part from the highest chemical and pathological authorities in this

country, would have had the effect of suspending judgment for a season, or, at least, that they would have received a respectful consideration from the State's legal and executive officers. Such, however, was not the case; the publication of the correspondence and certificates called forth from correspondents in the Albany papers a storm of gross abuse, ridicule, and misrepresentation upon the heads of nearly all the chemical and medical gentlemen who had ventured to question the infallibility of Messrs. Swinburne and Salisbury's testimony. The letter of Dr. Clark was characterized as an exhibition of mental gymnastics, "truly and emphatically ludicrous;" Drs. Hayes and Jackson were made to appear as ignoramuses, whose opinions were entitled to no value; while the writer was held up as a "conspicuous and ridiculous tool of a clique of designing men." The New York Pathological Society was spoken of as worthy of "a diploma written upon the hide of an ass." In short, every one connected with the prosecution seemed to think it necessary, for his own reputation, that all further investigations should be stifled, and the dread sentence of the law should be executed as soon as possible; and the Albany public were accordingly very generally made to believe that the movement in behalf of Hendrickson was (to use the language of one of the newspaper writers) a plot "too contemptible either to merit or meet with favor from any quarter."

The clamor thus raised produced the desired effect; the Governor of the State declined to interfere, and the sentence of the law was carried out a few days subsequent to the first publication of the certificates and correspondence above alluded to; the boy-prisoner solemnly reiterating his innocence to the very last.

Such was the dreadful termination of a case which stands unparalleled upon the records of American criminal or medical jurisprudence; we say *deadful*, because it involved the life of a young man who, but for evidence which has been shown to be wholly unreliable, would probably have been declared innocent. Eight years have now elapsed since the case closed by the execution of young Hendrickson, and since then nothing has occurred to augment the probabilities of his guilt, while some things have happened which lessen the credibility of the testimony of one of the chief witnesses against him. In reviewing the history of the trial, we have purposely abstained from entering as fully into de-

tails as might by some be thought desirable, as we have been unwilling to encroach to too great a degree upon the limited space afforded by your journal. We have also refrained in a great measure from discussing the medical testimony given by Dr. Swinburne; first, because pathology is not the province of the writer; and, secondly, because his (Swinburne's) testimony has been exposed and refuted upon all points by Dr. Alonzo Clark, and also by Dr. C. A. Lee; the last in a very elaborate article, which appeared, some six months after the termination of the case, in the *American Journal of the Medical Sciences*, i.e. October, 1854. To this article we would also refer such of our readers as may desire a fuller exposition of the chemical testimony, with notices of the toxicological processes followed by the best European authorities for the detection of the organic alkaloids in cases of poisoning.

We would also remark, that we know, personally, none of the parties whose course in behalf of the prosecution we have criticised; and it may be important to add further, that neither the writer of the present article, nor any of the chemical gentlemen associated with him, were applied to by any of the parties interested in the defense for their opinion. On the contrary, their action in the premises was spontaneous, and dictated solely by what they considered to be the demands of science, of justice, and of humanity. They did not, moreover, as has been charged, ever receive any compensation, either direct or indirect, for their services. They expected none; they would have accepted none.

The writer is also authorized to state, in behalf of a majority of the chemists signing the certificates given above, that they are ready now, as then, to maintain before any tribunal the correctness of the opinions expressed by them.

Brigade Surgeons.—Dr. D. Holmes, of Pennsylvania, has been confirmed as a Brigade Surgeon of Volunteers, and Drs. Artemas Chappel, of Nebraska, and J. T. Heard, of Massachusetts, have been nominated to the same position.

American Pharmaceutical Association.—This association will meet the present year in this city, on the 27th of August next. The meeting last year, which was to have been held in St. Louis, was omitted.

Dr. John E. Lake, Assistant Surgeon of the 6th Iowa, was wounded and taken prisoner at the attack on our forces at Pittsburg Landing, on the 6th of April.

EDITORIAL DEPARTMENT.

PERISCOPE.

Weekly Summary of American Medical Journalism.

By O. C. GIBBS, M.D.

ANÆSTHETICS IN MIDWIFERY.

In the *American Medical Times* for November 30th, Dr. B. Fordyce Barker has an able article upon the use of anæsthetics in midwifery practice. Our readers, doubtless, are well aware of the fact that Dr. Barker is a warm advocate of the use of chloroform in labor. Professors Simpson and Murphy, on the other side of the Atlantic, are, perhaps, no warmer advocates of anæsthetics in midwifery than is Prof. Barker, of New York. We shall try to give a synopsis of his article. Prof. Barker says:—

"There has not yet been reported, nor is there any reason for believing that a single death has ever occurred in midwifery practice from the use of any anæsthetic agent, where it has been administered by a medical man; and, without being able to give statistical evidence in proof of the assertion, I will express my firm conviction that it has been administered a greater number of times in obstetric than in surgical practice. There are sound and patent physiological reasons why its use should be much less dangerous in the former than in the latter practice.

"1st. The conditions under which they are administered are entirely different. In surgery the anæsthetic is used to give relief from an anticipated suffering. In obstetrics it is used to destroy pain already existing. There is no law better known in medicine than that the tolerance of narcotics and anodynes bears a certain relation to the intensity of the pain. One suffering from peritonitis or colic can safely, and with advantage, take a quantity of opium which would be sure to destroy the life of the same individual when in health. For this reason, the risk from such an agent must be very much less in obstetrics than in surgery.

"2d. The emotional condition of the subject, under the two circumstances, differs materially, in the one case tending to weaken nerve force and depress the vital powers, and in the other to secure tolerance of such an agent by stimulating and supporting the same elements. I do not stop here to discuss more fully the influence of the emotions as affecting the vital functions, although it is a subject of great importance, and one well worthy of the careful study of every practical man. For my present purpose, I think that the mere statement of the proposition is sufficient to secure its acceptance by every mind. When a

subject is about to submit to any painful operation, and an anæsthetic is proposed, there is always more or less dread and apprehension as to the result, to which is often added an anxiety in regard to the effect of the anæsthetic, whether it will really destroy all consciousness of pain; and if so, whether it will not also destroy life. But in midwifery the overwhelming desire is to be relieved from the recurrence of the pains, and when the effect of the anæsthetic has once been experienced, it is again sought for with the greatest avidity and confidence.

"3d. In midwifery it is ordinarily unnecessary to carry the anæsthetic to the extent to which it is essential in surgery. In the former, it may frequently be carried to the extent of diminishing or destroying sensation, while consciousness is retained; or, if sleep is induced, it is tranquil not stertorous. But in surgery it is absolutely requisite that the patient be perfectly still, and the anæsthetic must be carried to the extent of complete sopor—the test of which is heavy snoring. Even if it be necessary to carry it to this extent in obstetrical practice, as it may be in some cases of natural labor, and ordinarily when operative measures, either manual or instrumental, are demanded, the two conditions which have been before mentioned as greatly modifying the danger from the anæsthetic still remain. Furthermore, it may be added that the system is prepared by the previous use of the agent in a less degree, because there is now no emotional resistance to the effect of the anæsthetic. For these reasons, as well as from clinical experience, I never feel the least anxiety in administering an anæsthetic in obstetric practice, while I cannot divest myself from more or less apprehension when asked to do this by my surgical friends or by my patients, when dental operations are to be performed. Hence I feel warranted in asserting that the question of anesthesia in surgery is altogether distinct from anesthesia in midwifery. In this paper I propose to consider exclusively the latter subject.

"As regards the anæsthetic agent, my remarks will especially refer to chloroform, as this is the agent in which I have had by far the larger experience, and I very much prefer it to any other."

He gives his reasons in detail for this preference, but we have not the space for their recapitulation. In the comparison with ether, he makes the following remark:—

"Now, as chloroform has been used in many thousand cases of midwifery practice, and there is an absence of all proof that in a single instance has death resulted from its use, I think we have in the above reasons good *a priori* ground for believing that it is the more safe of the two agents."

Upon this point, we take pleasure in referring to our *Summary* of several weeks since, in which we expressed a similar idea.

Prof. Barker's experience is large, and the following expression is of importance:—

"I may mention here that I never have in a single instance, in obstetric practice, witnessed the slightest erotic manifestation while a patient has been, either partially or completely, under the influence of an anæsthetic. I allude to this because it has been urged with great effect as an objection against its use."

In regard to the influence of chloroform upon the duration of labor, he admits that in a *minority* of cases it has the effect to prolong it:—

"But," he says, "I have never yet had reason to regret the use of the anæsthetic on this account. But, in a large *majority* of cases, my experience would lead me to the conviction that the use of chloroform shortens labor."

He gives in detail the conditions where it apparently produces this latter result. We have space for only a few short extracts:—

"1st. In all those cases where inefficient uterine action results from loss of sleep and exhaustion from a prolonged first stage, I have had this fact absolutely demonstrated."

He gives cases to illustrate:—

"2d. In rigidity of the os uteri and perineum. In regard to these two points, we find quite a diversity of opinion on the part of obstetricians who are in the habit of using chloroform in midwifery, some asserting that it has a direct influence in effecting relaxation of these tissues, while others affirm that they have not been able to discover that it exerts any influence in this respect. The first condition causes delay in the first stage of labor, and the second, delay in the second. I believe the fact to be that chloroform exerts a most decided influence in overcoming this obstacle in one class of cases. Rigidity of the os results from two entirely different conditions, one of which is speedily relieved by the action of chloroform, while I am not certain that it exerts any special influence on the other."

Unnatural rigidity and resistance of the perineum, he also thinks, results from two quite different conditions. One the chloroform invariably overcomes, the other not.

"3d. The chloroform shortens the duration of labor in all that class where the pains are diminished or suspended by vivid moral impressions or hysteria, or by pains resulting from the coincidence of some malady, either existing antecedent to or appearing during labor.

"On the whole, then, I am obliged to state my conviction that chloroform accelerates labor in a greater number of cases than it retards it."

In cases of version, forceps cases, craniotomy, Cæsarean operation, removal of adherent pla-

centa, etc., he regards chloroform of the first importance.

In regard to the sequences of chloroform inhalation, he makes the following remark:—

"But, as a rule, the general condition of the patient, for the first few days immediately succeeding labor, is beyond all doubt much better where the anæsthetic is used than where it is not. I have never had a patient suffer from headache, delirium, vomiting, and the various other unpleasant sequelæ which have been ascribed to this agent. This may be partly due to the article which I have used. With very few exceptions, I have only used Duncan and Flockhart's or Squibb's chloroform."

Prof. Barker concludes with the following propositions:—

"1st. Anæsthetic aid is of the greatest value in the obstetric art, and chloroform is generally the preferable agent for this purpose.

"2d. It exerts no injurious effect, when properly administered, either upon the health of the mother or the child.

"3d. It is perfectly justifiable to use chloroform in natural labor, solely for the purpose of relieving pain.

"4th. It is especially useful in calming the extreme agitation and mental excitement which labor often produces in very nervous women.

"5th. It should be administered in those cases of natural labor where the progress is suspended or much retarded by the pain occasioned by previous diseases, or such as may supervene during labor, and in those cases where the irregular and partial contractions occasion intense and almost constant pain, but have no effect to advance the labor.

"6th. It is of great service in spasmodic contraction and rigidity of the cervix uteri, in tetanic rigidity of perineum, in certain forms of puerperal convulsions, and in the various obstetrical operations."

We have occupied unusual space with Prof. Barker's article; but the importance of the subject, and the impossibility of doing justice to Dr. Barker's views in less space, must be our apology.

ON OVARIOTOMY.

In the *American Medical Times* for November 30th, Dr. G. J. Fisher, of Sing Sing, New York, reports a successful case of ovariectomy. We refer to it for the purpose of calling attention to a few points in regard to the operation that we regard as of the first importance, and yet which we know are occasionally omitted, and we believe with the effect of deciding the fate of the hopeful patient.

The bowels were evacuated the day previous to the operation, after which evacuation a full dose of tincture of opium was administered. No solid food was allowed for twenty-four hours previous to the operation.

"The temperature of the room was raised to 80° of Fahrenheit's scale, with directions to maintain it at that point." About three o'clock p.m. the patient, having previously taken a good "whisky-toddy," was brought under the full influence of a mixture of chloroform and sulphuric ether, in the proportion of one-third of the former to two-thirds of the latter.

The abdominal opening, and the corresponding one in the peritoneum, was not as free as is sometimes made, being but four inches.

"The index finger introduced, acting as a probe, discovered extensive adhesions, which were broken up with considerable force." * * *

"The hand was introduced, and passed over the surface of the tumor, boldly detaching the extensive and firm adhesions which were encountered. A large trocar was plunged into the presenting cyst, and several gallons of the peculiar muclaginous fluid drawn off; the hand was again introduced to detach other extensive adhesions, some of which were so firm as to require the use of the knife. Another large cyst was brought forward and tapped, and, in like manner, a dozen or more cysts, varying in size, were brought forward, and their contents discharged. Large masses, composed of an aggregation of small cysts, were drawn to the external opening, and when too great to pass readily, they were freely incised, with a view to diminish the bulk, and facilitate their removal. The pedicle, which was developed from the right broad ligament of the uterus, was wide, but not very thick nor fleshy; it was long enough to admit of being brought external to the abdomen, for the adjustment of Dr. Atlee's improved metallic clamps, which were preferred to the ligature. The clamp having been applied as closely as possible to the tumor, with a view to increase the length of the pedicle, and screwed down so tightly as completely to prevent hemorrhage, the mass was cut off a little more than half an inch beyond the instrument. This is considered important, as it prevents the possibility of slipping, which would be more liable to occur should the tumor be cut off close to the clamp. The operation was so far unattended by hemorrhage that neither ligatures nor the solution of the persulphate of iron were applied. The adhesions were confined to the walls of the abdomen; the omentum, liver, intestines, and other viscera were free.

"The parts having been carefully sponged, the left ovary being examined and found healthy, the peritoneal edges of the wound were nicely coaptated by hare-lip pins inserted an inch apart.

"The pins were made to penetrate the abdomi-

nal parietes to the extreme edge of the cut peritoneum on one side, and entered at the same point on the opposite side, thus bringing the internal edges of the wound in perfect contact. Over the ends of the pins the figure of 8 thread ligature was arranged. This mode of dressing is regarded important, as it avoids leaving a pus-secreting surface within the abdomen."

Adhesive strips, a heavy compress, and firm bandage were applied, which completed the dressings.

Cracker-water and beef-tea constituted the principal diet, and opium was given with tolerable freedom.

The bowels were moved by enema of soap and water on the seventh day. There was no hemorrhage; the extremity of the pedicle sloughed on the fourth day, and the pins and clamp were both removed—the incision having mostly healed by first intention. The wound was entirely healed in about three weeks, and the appetite and pulse of the patient were good.

We regard success in this case principally owing: 1st. To the elevation of the temperature of the room to near the normal temperature of the body. 2d. To the administration of a liberal stimulant just before the operation, that the risk from the administration of chloroform might be obviated, and the shock from the operation the better borne. 3d. and mainly. To the manner in which the pedicle was dressed. Those who have operated most think that deaths are mainly due, in these cases of ovariectomy, to hemorrhage, and to the decomposing matters from the pedicle. The pedicle has a peculiar power of contractility, which often permits its retraction through the ligature a few hours after the dressing, and death results from hemorrhage, and, if the case is reported, it is said that death resulted from the shock of the operation. The pedicle is often quite fleshy, and if the discharges caused by the suppurating of the ligature through it, and the decomposition of that part lying between the ligature and the knife-cut, were injected into the peritoneum of a healthy woman, even without the terrible incision, death would, in the great majority of cases, result. What then can be expected when these conditions are permitted for the endurance of a greatly enfeebled patient, after having submitted to the terrible operation consequent upon the removal of one of these tumors!

Dr. W. L. Atlee, of Philadelphia, has operated sixty-four times, for the removal of such tumors, with very remarkable success. He regards atten-

tion to these matters of detail, and the prevention of the consequences resulting from hemorrhage, and the discharges from the pedicle, as of the first importance. We know of a physician who has operated some six or eight times, with death resulting in every case—neither one of them have been reported—and the reasons of the failure are obvious. He has performed this operation as he would remove a finger—without the least preparation, and seeming to forget that any subsequent hemorrhage or purulent discharges, without special precautions, were to be left to work their deadly effect upon that irritable, extensive, and very important serous membrane and cavity, the peritoneal.

No surgeon should undertake a grave operation, especially where abundant time is given for study and reflection, without making himself familiar with the most approved and successful methods of operating. Our patients have a right to expect better things of us than carelessness and indifference. And if there are any persons deserving our sympathy, commiseration, and the best efforts of our skill, and that, too, based upon the best results of medical and surgical experience, it is those unfortunate females afflicted with that medicinally incurable disease, ovarian tumor.

It has been our practice, in the preparation of our *Summary*, when a subject of so much importance as ovariectomy came up for remark, to not only give a synopsis of the paper before us, but to give some of the more important recent views upon the points considered, with such ideas and suggestions as occurred to us. Thus designing to keep our readers thoroughly posted on the more important medical subjects, and, at the same time, refer them to the sources where they can pursue the subject further, and find in detail the later and more important articles that, as yet, have not been incorporated into standard works.

Since our labors commenced in the *REPORTER* this opportunity, so far as ovariectomy is concerned, has but once or twice occurred to us, and then when we had not the time to do as we desired.

In the *REPORTER* for September 7th, after giving a synopsis of an article, and some opinions of our own, we said, "We leave this subject to be resumed hereafter." That promise we now redeem with some misgivings, lest our readers shall regard themselves bored. Let us consider a few points as briefly as possible.

The origin of ovariectomy.—It is universally conceded that this operation originated in America, and in the then almost wilderness West. The man who first performed it is a matter of recent dispute. It has been quite generally conceded that the first operation was made by Dr. Ephraim McDowell, of Danville, Kentucky, in 1805. This has recently been denied by Dr. Joseph N. McDowell, of St. Louis. He says the first operation was performed by an Indian hunter, who, in later life, had made a living by speying animals. This was in 1809. He further says that the operation imputed to Dr. Ephraim McDowell was not performed by him at all, but by Dr. James McDowell—Ephraim being present and assisting. This controversy seems to rest with the Drs. McDowell. We are rather disposed to regard this Indian story as an ingenious fiction, though names and papers are referred to in proof. We regard it as very fortunate that these first cases proved successful, else the operation might have never been again attempted.

Is the operation justifiable?—This is a hard question to answer, and, under some circumstances, the conscientious physician can but forcibly feel its gravity. Our opinion was once sought where the patient was a relative and esteemed friend. We tried to fairly state the facts in regard to the natural tendencies of such cases, the dangers of the operation, and the average results, but stated, were we the patient, at a certain stage when life became almost a burden, we should take the risk. She took it, and died a few days after! We do not think—though we confess we were not present—that the patient had the full chances which the then present state of medical and surgical experience offered. A few regrets we could not help suffering. A few years before we had a similar case; we gave the same advice. She declined it. Under the best of care and treatment, the duration of her disease was just about the same as in the patient just referred to. In the case operated upon with fatal effect, it is quite probable that life could not have been protracted more than two or three months longer, and that under great suffering; hence, the patient could not have been considered as risking or losing much. If the opinion that life could only be prolonged for two or three months could be reduced to a mathematical certainty, almost any person thus afflicted would take even a desperate chance. The trouble in giving satisfactory advice is, we cannot know, until perhaps too late,

how long life may be prolonged under palliative treatment. Neither can we know but that in our attempt to convert a life of disease and early death into a life of comfort and average duration, all may be lost.

Prof. John Delameter, of Cleveland, who has passed a long life of medical practice—over forty years engaged in medical teaching, and been largely in obstetrical and surgical practice—would never consent to perform the operation for ovariectomy, nor countenance the operation even by being present where it was to be performed. The same decided objection has been made by other distinguished authorities, both in this country and in Europe. Others have claimed that it was not more unsuccessful than other capital operations, and could be rendered less so.

We cannot enter into full statistical particulars on this subject. As the operation was first performed by a Kentucky surgeon on an Ohio lady, we will refer to these two States if to none others.

In the *Louisville Semi-Monthly Medical News* for September 15th, 1860, is a very able paper upon ovariectomy, by Dr. J. T. Bradford, of Augusta, Kentucky. Dr. Bradford finds 30 cases performed in Kentucky, (or by Kentucky surgeons,) of which 19 recovered and 11 died. When we regard the fact that these embrace the first operations by men, many of them with small experience and in the infancy of the operation, we should expect that riper experience would improve the table. On this point we can refer with pleasure to Dr. Bradford's own success. He has engaged in nine operations, of which only one died. This is truly remarkable success, when we consider that the smallest tumor weighed twenty-four, and the largest sixty-four pounds.

Dr. Bradford places much stress upon the proper fastening of the ligature, assuming that full 25 per cent. die of hemorrhage.

In regard to Ohio statistics, we have not quite as favorable a report to make; but this may be owing to the fact that the author of them hunted up, as far as possible, all unpublished unfavorable cases. An able report will be found in the *Transactions of the Ohio State Medical Society* for 1859, by Prof. J. W. Hamilton.

Of attempted operations by Ohio surgeons, or upon Ohio females, he finds 51 cases. These cases lap a little on to Kentucky, but we cannot well help that. In these attempts 13 proved imprac-

licable. Hence the operations dwindle down to 32. In these 32 cases 21 cures are reported, and 11 deaths. But of the 13 cases of attempted operation and failure in the completion, 7 died as a result of the attempt, and, unless our diagnosis can be perfected, these must be counted. As we cannot here consider the subject of diagnosis, our readers will permit us to refer them to an excellent article upon that subject in the *REPORTER* for December 17th, by Dr. W. L. Atlee, of Philadelphia.

Prof. Hamilton, in the report above referred to, argues the propriety of the operation from a peculiar stand-point. We cannot enter into his minute and complicated argument. He argues that the average length of life in patients suffering from ovarian disease, after the ordinary time of a proposed operation, does not exceed two years. If in 32 cases 11 resulted in death immediately, then in the 32 cases *twenty-two* years of life were lost; or, taking the whole 51 cases and 18 deaths, thirty-six years of human life were lost by the operation. To offset this, the average age of the patients operated upon was 32 years. The expectation of human life at that age is admitted by insurance companies to be 33 years. Then, in the 21 recoveries after the operation, we get a gain of *six hundred and fifty-one* years of life. Taking the whole 51 cases, we get 18 deaths, 6 remaining as before, and 21 cures—a loss by death of 36 years, and a gain by cures of 651 years. These figures differ from those given by Prof. Hamilton, but we certainly cannot see how he gets his. Had the diagnosis been more perfect, so as to have no cases in which the operation could not be completed, the relative gain to the loss would have been far greater.

Prof. Hamilton thus sums up his idea of a surgeon's duty:—

"Hence, as the conservator of the life and health of his patients, *the surgeon, ordinarily, has no right, till a less hazardous or more successful treatment is presented, to withhold the operation when the diagnosis of cystic disease is clear, if, after a candid and full statement of its hazards, the patient is desirous to assume it.*"

This is our view exactly; but we would add, when he does consent to undertake for his patient the operation, he should give her the benefit of every known advantage that will contribute, in however small a degree, toward success.

Up to the spring of 1860, Dr. Charles Lee had operated ninety-three times with perfect success in 64 cases, and failure in 29. Spencer Wells

has operated nineteen times with 11 cures and 8 deaths. We regret that we cannot readily lay our hand upon, even if we possess them, the statistics of Dr. W. L. Atlee's operations.

In the *London Lancet* for January of the present year, Dr. I. Baker Brown reports 5 cases of ovariectomy with but 1 death. It is remarkable (but of this further on) that in the fatal case the tumor was the smallest of the five. Prof. Henry Miller, of Louisville, has operated three times, with success in all. Several successful cases of ovariectomy have been reported within the year past, but we have no means of knowing whether they were their authors' only cases or not, and of course can make no use of them. Let us tabulate these few cases.

Foreign.

	Cases.	Recoveries.	Deaths.
Charles Clay . . .	93	64	29
Spencer Wells . . .	19	11	8
I. Baker Brown . . .	5	4	1
Total . . .	117	89	38

Making the recoveries a trifle over 76 per cent.

American.

	Cases.	Recoveries.	Deaths.
J. T. Bradford . . .	9	8	1
Ephraim McDowell . . .	8	6	2
Henry Miller . . .	3	3	0
Total . . .	20	17	3

Making the recoveries just 85 per cent.

In this connection we cannot refrain from quoting from the venerable Dr. Cartwright, of New Orleans:—

"Too little attention is paid to facts derived from American fields of experience, and too much importance is attached to the dogmas and opinions of book-makers and teachers in the large cities of Europe. They are mostly opposed to ovariectomy, because of the ill success which has attended it in Europe, and are slow to believe that inexperienced country physicians, in the backwoods of America, have been more successful than the most experienced and dextrous surgeons of their large hospitals."

It may be said these are selected cases. This we grant—we have selected them for a special purpose. All the persons named operate in a similar manner, and with the view of taking advantage of every means to secure success. It is true that the same number of operations could be selected, performed by an equal number of perhaps even more celebrated surgeons, that would not give even five per cent. of cures. We

do not believe success to be a matter of chance or accident, and it is to influence all our readers who may operate to strive for equal if not superior success to that named above that we write. That the statistics of the past are not a true measure of what future operators may expect to attain as their success, is well illustrated by the cases of Dr. Clay. In his first 40 cases he got but 26 cures—65 per cent. In his last 53 he got 38 cures—71½ per cent. Or, to better show progress, in his first 20 cases the cures were only 60 per cent. These, when compared with the last 53, show a gain in the latter of over 11 per cent. of cures.

The gentlemen above named have taken more pains in the details of the operation than any operators we know, unless we except Dr. Atlee, of Philadelphia, and their success has been incomparably the best, and bring out in bold relief the difference in results between the operations of a surgeon who goes to his work, having in view only the life of his patient which is to be saved, and another who sees only a tumor to be removed.*

We have not forgotten that we were considering whether or no the operation should ever be undertaken. We would answer that question thus: If no better results can be obtained than has fallen to the lot of many good surgeons, no. But if the surgeon is willing to do his whole duty, and give his patient every advantage that the present state of knowledge and experience offer, in suitable cases and the patient desires it, then he has no right to withhold from the patient the chance for life which ovariectomy offers. The *consent of the patient* does not absolve the surgeon from his responsibility to do his whole duty. The patient's confidence may be misplaced. If the patient dies from the work of his hands his conscience should convict him of guilt, unless he has done all that the present state of knowledge could demand of him. So in the ordinary practice of medicine; the patient may be willing to trust his life to the hands of the most ignorant pretender. But if the latter does not do the work assigned

to him, in the full light of the present state of medical science, he is guilty of the gravest misdemeanor.

Before quitting this part of our subject, we would make two brief quotations from two high authorities. Dr. West is not an advocate of ovariectomy, neither has he faith in any curative agents in these cases. He says of them:—

"We come to the sick-chamber day by day, to be idle spectators of a sad ceremony, and leave it humbled by the consciousness of the narrow limits which circumscribe the resources of our art."

Dr. Spencer Wells remarks upon this quotation thus:—

"We have all seen the poor creatures he so eloquently describes, fading hopelessly away. But the resources of our art are not so limited as he would imply. We may be something more than idle spectators of a death-bed. We have a resource to offer, hazardous, it is true, but one which has in many cases been crowned by a complete and brilliant success."

The question of operation is fairly met in the following:—

"To him who asks 'How dare I advise an operation we know to be so dangerous?' I answer, How dare you leave the poor woman to die without an effort to save her?"

To be continued.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, MAY 3, 1862.

HEALTH BILLS AND A DISEASED BODY POLITIC.

We confess to a very great disappointment that the Metropolitan Health Bill failed to pass the New York Senate, after having passed the lower house. It was predicted that "influences" would be brought to bear that would stifle it there. What those influences were, it is not for us to say. Politicians, those curses of our country, doubtless can tell. It is all one to them whether human life is sacrificed in subterranean cellars in New York, amid squalid filth and poverty, or whether death is dealt out by the glass on every street corner, or arises in miasm from filthy streets, or whether it is belched forth from the cannon's mouth, or caused by the sword in the hands of a brother, or the exposures and hardships incident to camp-life—we say it is all one to these excrescences, these foul blots on our

* We would ask as a special favor, that those of our readers who have operated for ovariectomy would report to us their operations, with results and dates. Also, that any who have had anything to do with gathering statistics of this operation, would place the results in our hands. We will try to reciprocate the favor. At some future time we would like to give a statistical history of this operation in America. If we can get a full response, we will give a full synopsis each year besides of this operation in this country, in our Summary. We feel confident American surgery will be found in advance of the foreign. We would be greatly obliged if other journals would copy this note.

republican society, how, when, or where human life is sacrificed, so that their schemes and plots shall succeed in retaining them and their friends a little longer in office. These hypocrites, many of whom, doubtless, stand in their places on each succeeding Sabbath, and before high heaven, to the petition "From plague, pestilence, and famine; from battle and murder, and from sudden death," piously ejaculate "Good Lord deliver us;" these bad men, when sent by the voice of the laboring men of their districts to legislate in their interests, and in the interest of their country and of humanity, wickedly use their influence and votes, not to benefit their race, but solely to perpetuate their power, or the power of the party to which they belong.

We are constrained, in the language of the Psalmist, to say, "O Lord, how long?" How long before our country shall be delivered from the evil counsels of these bad men? How much must we, as a nation, as states, and as communities suffer, before this evil spirit is cast out? How many more lives must be sacrificed to this Moloch, before our legislators will devote their energies to legislating for the good of their race, rather than for the benefit of themselves or their parties?

Here on our shelf slumbers the Report of the Sanitary Commission appointed by the Legislature of Massachusetts, and approved, now just thirteen years ago, in which the sanitary interests of that commonwealth were set forth in propositions as clear and demonstrable as the problems in Euclid. Here is this able Report, and Massachusetts, to this day, is without adequate sanitary regulations. There, on the table of the President of the New York State Senate, lies an act which was intended to remove the health interests of the great City of New York and its immediate surroundings from the influence of politics and politicians, and place them in the keeping of a commission composed of independent men outside the arena of politics, a majority of whom, by education, taste, and association, should be capable of managing such vast interests in an intelligent manner. How long that act will lie there, it is impossible to say. As an item of unfinished business, it may be called up at the next session of the Legislature, and passed then, provided the Senate favors the measure. Even then it may encounter the veto of a governor.

But while it slumbers there, subterranean tenebrous houses, filthy streets, and other deleterious

influences are at work, causing sickness and poverty, and shortening life in a city which, with proper sanitary regulations, such as this bill proposed to give it, is susceptible of being made one of the most healthy cities in the world.

Let the profession of the City and State of New York use their influence the while, to enlighten the public as to the important bearing the act has on the health of the city and State. Let it not be their fault, if the act does not pass at the next session of the Legislature.

EDITORIAL NOTES AND COMMENTS.

Naval Warfare.—The existing conflict in our country has given practical application to new and important principles in naval warfare, by which muscular strength and personal bravery have been supplanted by the strength of the contending vessels. Iron-plated ships, heavy and rifled ordnance, and conical balls now strive for the mastery, while the intelligences that direct them are protected, measurably at least, from harm.

At a recent meeting of the Polytechnic Association of the American Institute, in New York, Mr. Dibben opened the discussion in a sketch of the history of iron-plated ships.

Prof. Renwick—There are some facts in the history of this art which were not stated in the highly-satisfactory address to which we have listened. Iron-plated ships were first suggested by John Stevens, the father of Robert and Edwin. In regard to the columbiads, the first one was designed in 1803. Drawings were made by Major Williams, and a hundred-pounder was cast and placed in Castle William, on Governor's Island, in this harbor. Elongated projectiles were invented by Robert L. Stevens, before the close of the war of 1812. I was present at a trial of them during the war, and that trial was not successful—the shells did not explode. In 1817 there was another trial, at which I was not present, but I was informed that it was successful. A number of shells were made and placed in boxes and deposited in Castle William to be ready for use.

Mr. Babcock—A number of steel shot have been recently prepared for the government and placed on board the *Naugatuck*, Stevens' little boat, to be used in a hundred-pounder Parrott gun against the *Merrimac*, if she again ventures

out. They are of solid cast steel, of the acorn form, with the point terminating in a cylinder three inches in diameter and about three inches long, with a perfectly square end, the corners being nicely finished to a cold chisel edge. It is thought that if they do not penetrate the side of the *Merrimac*, they will at least catch into the plates with sufficient hold to tear them from their places. I am told that the *Merrimac* has precisely similar shot, weighing 360 pounds each, with which to attack the *Monitor*.

Therapeutic Application of Gelsemium Sem-pervirens.—Dr. J. H. Simms, of Wilmington, Delaware, writes: I have used the extract of gelsemium for years, with the most decided success. It is a grand febrifuge. I prefer that prepared by Tilden & Co. over all others I have tried. The most complete antidote for its poisonous effects is the extract of *nepeta cataria*. I have counteracted its effects with two doses in warm water, at intervals of ten minutes.

Dilatation of Strictures of the Urethra.—In our notice of the Transactions of the New York State Medical Society, in a recent number, (page 70 of current volume,) the ingenious instrument for dilatation of strictures of the urethra there spoken of, was devised by Dr. J. H. Hobart Burge, of Brooklyn, and not, as stated, by Dr. Hutchinson.

Medical Society of the State of Pennsylvania.—We would call the special attention of our readers in all parts of the State to the call issued by the Philadelphia County Medical Society, inviting the State Society to meet in this city in June. We know of no reason why the State Society should not hold its regular meeting this year, and why it should not be full and profitable. Let county and local societies appoint their delegates immediately.

CORRESPONDENCE.

Domestic Correspondence.

HINTS TO ARMY SURGEONS.

FULTON, LANCASTER COUNTY, PA., April 25, 1862.

EDS. MED. AND SURG. REPORTER:—In these days of human carnage, when the telegraph brings to us, daily, the news of numerous battles fought in various sections of our country, it becomes a matter of special interest to the medical

profession at large, to learn in what manner our brave troops suffer the most in those bloody engagements. Have all our dead perished in an instant? Are they all blown to atoms by the huge cannon-ball or the bursting shell? Are they all killed outright by the swift-flying rifle-bullet entering some vital part of the body; or do many of them die on the battle-field, long before assistance can be rendered them by the surgeon, from hemorrhage incident to wounds inflicted by these missiles of modern warfare?

These are questions worthy of thought, and deserving the attention of every one having the least interest in the lives of the thousands now battling for the precious rights of freemen, and the re-establishment of our once glorious Union.

That many of our brave soldiers have been killed instantly, or wounded mortally, in our engagements with the rebels, no one will deny. It is also equally true that hundreds have died on the battle-field, (they having no medical assistance,) from simple hemorrhage from wounds which, in themselves, were not mortal. Who can doubt the truth of this, after reading the *official* and *unofficial* reports of the battles of Pea Ridge, Winchester, and the more recent conflict at Shiloh or Pittsburg Landing? It is said "that the moans of the wounded left on the field were truly awful." At the latter-named battle "every bush and tree in the forest had its wounded." The next morning many of these, our brave fellows, had sunk to rest, dying from *exhaustion* and *loss of blood*. How terrible must have been this spectacle to those who witnessed it, and how sad the story to those who are now forced to read it! Could not many of these deaths have been obviated by the surgeons? Most certainly, if these soldiers could have been reached by members of the medical corps of the army. But, in many instances, this was an impossibility. Thus it was in the battles named, and so it will be in every battle yet to be fought. Darkness coming on, and the enemy in close proximity, and, in some instances, in possession of the contested ground, prevented many from being relieved, and the consequence has been that hundreds of men, with torn veins and severed arteries, have been left bleeding until life was extinct.

Granting the fact that there are cases in which the surgeon is unable to pay to the wounded that attention which is demanded of him, and making due allowance for all impossibilities, we think that

there are many lives sacrificed, and limbs amputated, which, with proper foresight on the part of brigade and regimental surgeons, might be saved.

There are many things that the army surgeon *could* and *should* acquaint his soldiers with, before they are ever brought into battle; and it is concerning these that it is our purpose now to speak. Many of our suggestions may seem small in the eyes of the knowing ones, but they will be none the less important.

In the first place, it should be the imperative duty of the army surgeon to present every soldier, whose life he has the care of, with a simple tourniquet, at the same time instructing him how to apply it around the limb of a comrade which has been pierced by a bullet, cutting off an artery, or to the stump of a limb which has been carried away by a cannon-ball.

These tourniquets could be made of leather, thick muslin, or some elastic substance, and consist of a strap attached to a buckle. Could anything be more simple as to construction and application, and more effective for the purpose intended? Surgeons are not omnipresent. They cannot be at every point of the field at once, and before hundreds of the wounded reach them by means of the ambulances, they have bled to death; whereas, if their comrades had been instructed how to prevent hemorrhage, and had each their tourniquets at hand, and possessed the meagre knowledge necessary to know how to use them, many valuable lives might be saved.

Secondly, every surgeon should teach those whose duty it is to carry the disabled from the scene of action, to see that the wounded soldier is placed in a recumbent position, with the *head lower than the body*. This injunction impressed upon our men and enforced by the proper officers, and there would not be so many brought into army hospitals in a state of syncope, produced by the cessation of the heart's action through loss of blood. Syncope in itself, we know, is not dangerous; but its concomitants are always to be dreaded. Who knows but in a fit of syncope that a heart-clot may not be formed, costing a soldier his life, although he may apparently recover from his paroxysm of unconsciousness?

As we have previously stated, every man in the service should be furnished with the simple appliance we have suggested, or something answering the same purpose. A regiment, a brigade, thus provided would be better prepared

to meet danger and come out of many a severe struggle with a much less number on the list of the dead. To furnish soldiers with such a tourniquet would require little effort on the part of the surgeon, and the expense would be but trifling. To instruct them in its use, as well as to impress upon their minds the importance of placing the faint from *exhaustion* in a recumbent position while removing them from the battle-field, would not be "love's labor lost."

We have never for a moment entertained the idea, that our intelligent surgeons in the field are not cognizant of the utility of what we have written; but the question is, have they thought of all this, and have they acted in accordance with our suggestions?

In conclusion, to quote the language of the philosopher Franklin, "These rules, well observed, will do the business;" and we venture to assert that hundreds of our brave and patriotic soldiers "who now sleep their last sleep," would, in all probability, now be alive and yet able to fight for their country and their country's honor.

C. H. STUBBS.

Army Correspondence.

CAMP NEAR YORKTOWN,
April 25th, 1862.

MESSRS. EDITORS:—The volunteer delegation of surgeons from Philadelphia have arrived in this vicinity, and have made extensive preparations for the care of wounded soldiers. The organization of the corps has been effected by Surgeon-General Smith, under direction of Governor Curtin, who, by authority of the State Legislature, empowered the Surgeon-General with ample authority and financial resources for accomplishing this humane object in a manner suited to the exigencies of the great battle which is now impending.

The following gentlemen compose Surgeon-General Smith's staff: Drs. Gilbert, Agnew, Levis, Thomas, Halsey, Hodge, Turnbull, Bishop, Nebinger, Norris, Gloninger, McBride, Moon, Fish, Flynn, Applegate, Guth, and Campbell.

There are also accompanying the body an army quartermaster, a number of ladies of the order of Sisters of Charity, who act as nurses, a steward, male nurses, attendants, cooks, etc. An extensive supply of hospital stores, instruments, medicines, litters, stretchers, delicacies for the sick, and provisions for the party, have been liberally

supplied by the State, and nothing is wanted to make the organization an efficient aid to the medical department of the army before Yorktown, yet it is, in itself, an independent body, acting with its own resources.

The party landed first at Fortress Monroe, and were courteously received by Dr. Cuyler, the Medical Purveyor at that post. Attended by the surgeons of the hospitals, they visited the wards, in which were a large number of wounded, who had just been brought in from the recent skirmishes on the front of our lines. Most of them had been wounded by rifle-balls, and, being near to the enemy, the parts were almost invariably traversed by the missile. A few had been wounded by fragments of shells, presenting the characteristic lacerations. Some of the men had been wounded while working on the roads, and building bridges, and, having been shot while in stooping positions, the courses of the balls were often unusual. One was struck on the edge of the anus, and the ball ran upward through the buttock, and escaped at the loins. Another received a ball beneath one ear, the ball then traversing the neck obliquely downward, and running across the back, and out through the opposite shoulder.

A portion of the delegation were quartered at the Fortress, doing some duty and observing cases in the hospital. Their stay was made agreeable through the attentions of Dr. Cuyler and the Brigade Surgeon of the Fortress, Dr. Bon-tecou.

Dr. Gilbert was requested by the Medical Director, Dr. Tripler, to proceed to some military hospitals at Ship Point, and investigate their condition and causes of complaint from surgeons and patients, and to report to him. In accordance with this order, Dr. Gilbert spent several days at the hospitals, and investigated and remedied the grievances as far as was practicable.

The inconveniences from which the surgeons and patients are suffering are those connected with the exigencies of extensive and rapid military movements, and which time and labor in systematizing can alone overcome. Yet "red tape" formalities, so generally connected with military movements, are also answerable for some of the privations as investigated by Dr. Gilbert. The surgeons have had to contend with many difficulties, as from crowding of patients, want of nurses, and, at times, the limited quantity and variety of provisions. The want of

formality in an order obliged the patients to be for a whole day without food.

Patients were found to be suffering from want of the ordinary means of securing cleanliness, no washing being done for them; and some have lain throughout their illness without change of clothing. From want of conveniences, patients suffering with dysentery are required to be led to the latrines, some distance in the rear of the hospitals.

The water used is from shallow wells that receive water by percolation from the surface, and which is necessarily impure, becoming foul when allowed to stand. The location of the hospitals is a flat piece of ground, on which the water is stagnant.

These inconveniences, as has been remarked, are the unavoidable result of the vicissitudes and fortunes of war; yet, through the industry of the military surgeons of the post, and the labors of Dr. Gilbert, the condition of the sick is now greatly palliated. Dr. Gilbert secured for these hospitals, from the agent of the Sanitary Commission, some essentials to the comfort of the sick.

Several of the members of the corps went up to Ship Point, the nearest landing place to General McClellan's army; and after arriving there, Surgeon-General Smith proceeded to report to the headquarters, near Yorktown. Others of the party, who had arrived at Ship Point, soon reached the advance of the army.

At this camp there is one large hospital, occupying an old mansion house which is said to be the same that was once the headquarters of General Lafayette. A field near to this building is the memorable spot where Lord Cornwallis surrendered his sword; and the charred ruins of a house a little further in the advance, are all that is left by the rebels of General Washington's headquarters.

There are, in addition to the hospital above alluded to, a number of field hospitals in tents. Dr. Tripler is Medical Director of the forces under General McClellan.

Through the energy of Surgeon-General Smith and the munificence of our State, a large steamer has been secured for use as a floating hospital, and Dr. Tripler has chartered for the same purpose the splendid steamer *Commodore*, and placed it under our control.

Most of the volunteer corps of surgeons, with the whole force of assistants and nurses, are now

comfortably quartered on the floating hospitals, and have been industriously laboring to fit them up for the reception and care of patients. This is now entirely accomplished, and accommodations for about seven hundred patients are provided; and on an emergency about nine hundred can be cared for.

The staff has been properly organized for duty, and strict rules for the government of the floating hospitals have been adopted and are thoroughly enforced. The first patient on the vessel was Dr. Walton, of Philadelphia, formerly of the medical department of the army, but now an officer of cavalry. Lieutenant-Colonel Bartlett, of Massachusetts, was taken on board our floating hospital last evening, having been wounded while on picket duty, and has had his thigh amputated.

The difficulty of transporting the wounded from the army near Yorktown to the floating hospitals is very great, although the vessels are as near to the scene of conflict as they can at present with safety be placed. Lieutenant-Colonel Bartlett was jolted in an ambulance five miles over a terribly rough and muddy "corduroy" road, and was five hours on the way. As soon as the York River can be cleared of the enemy, the floating hospitals under control of Surgeon-General Smith will be taken up near to the battle-field.

When one of the hospital steamers is filled with wounded soldiers, it will transport them, without transshipment, immediately to the hospitals or the care of their friends in Philadelphia.

It will thus be seen how thorough have been the preparations for the care and medical treatment of wounded soldiers by Surgeon-General Smith, who has shown his administrative ability and business energy in the management. The officers and soldiers of the State of Pennsylvania received with enthusiasm the news of the preparation made for the reception and taking home of the wounded, and all our civilians will feel a patriotic pride in our State, which has exceeded all others in her liberal arrangements for the care of her noble defenders.

A flag floats from the masthead, on which is inscribed "Hospital, Pennsylvania Volunteers."

Three assistant-surgeons of our number continue in the hospitals at Fortress Monroe.

In the military hospitals at the camp near the front of our lines have been many interesting surgical cases, and the skirmishing and shelling, which are continuous, add to the daily casualties.

A deserter from the rebel lines, while approaching our pickets without showing his intentions, was shot through the chest. The ball entered through the left side of the upper bone of the sternum, passed obliquely backward, and escaped through the posterior border of the scapula. The wound occurred two weeks ago, and air still escapes through the openings during expiration, yet the patient was evidently convalescent. Lieutenant Wagner, of Philadelphia, was brought in wounded in the elbow by the explosion of a shell, which struck on his table while he was engaged in making a topographical drawing. Amputation was speedily performed; but he died, on the third day, from hemorrhage. The body was injected with chloride of zinc by some members of our volunteer delegation from Philadelphia, and has been sent to his friends. Surgeon-General Smith has made full preparation for the preservation of those bodies which are to be sent to a distance.

NEWS AND MISCELLANY.

The Philadelphia County Medical Society and the Medical Society of the State of Pennsylvania.—At the April meeting of the Philadelphia County Medical Society, the following preamble and resolutions were unanimously adopted:—

"Whereas, The regular meeting of the Medical Society of the State of Pennsylvania for the year 1861 was not held at the time and place designated by that body at its preceding session, in consequence of the disturbed state of the country; and whereas, it is probable that for similar reasons a meeting held the present year at a point beyond the mountains would not be attended by many delegates from the eastern portion of the State; and whereas, it is highly important that the organization into State and County Societies should be maintained for the interests of the profession at large; therefore

"Resolved, That the President, in the name of this Society, be authorized and requested to extend an invitation to the Medical Society of the State of Pennsylvania, through its officers and committee of arrangements, to hold a meeting in this city, at 11 o'clock A.M., on the second Wednesday of June next; and that the Delegates of this Society be constituted a committee of arrangements for the reception of the State Society."

Meeting of Physicians.—Some forty physicians recently held a meeting at the Charity Hospital, in this city, for the purpose of renewing the offer of their professional services to the Government, formerly made and accepted by General McClellan; the offer now made is for Yorktown. Dr. H. St. Clair Ash was called to the chair, and Dr.

Updegrove was appointed secretary. A committee of five, of which Dr. Wilson Jewell is chairman, was appointed to communicate with Secretary Stanton, who has accepted the benevolent offer thus made, and requested the gentlemen to hold themselves in readiness. Physicians not yet enrolled will please send their names to the chairman, or any member of the committee, as it may suit their convenience. The following are the committee: Dr. W. Jewell, chairman; Drs. Ash, Wilcocks, J. B. Patterson, and Updegrove.

Aerated Bread.—On Saturday afternoon a number of the members of the Academy of Medicine, New York, proceeded to the extensive bakery of the Aerated Bread Company, at the corner of Lafayette Place and Fourth Street, for the purpose of witnessing this manufacture. The basement, an apartment nearly one hundred feet long by thirty wide, is used for the bakery; and a casual look through the place would incline one to the opinion that it was a gigantic machine shop rather than an establishment for bread making. The large vaults under the sidewalk are occupied by a steam-engine and the gas apparatus, gas being prepared from carbonate of lime and sulphuric acid, and thence, after being washed and cleansed through charcoal and quartz, is passed into immense receivers, where it is held ready for use. The kneaders or mixers are large iron vessels into which is carefully bolted two barrels of flower. After being salted and moistened it is kneaded by iron knives, which revolve between similar knives or sharp teeth inside of the vessel. Having been thoroughly mixed, the air is exhausted and the carbonic gas injected, 150 pounds to the inch. The dough is again kneaded for twenty minutes, and then weighed and passed immediately into the oven. For the mixing and baking of two barrels of flour one hour and a quarter is consumed. The oven is an immense brick chamber, containing a revolving wheel like the paddle wheel of a steamer—the swinging paddles forming the shelves upon which the pans of dough are placed. The process is based upon true scientific principles, and yields bread which contains only flour, water, and salt; it is extremely cleanly, as no hand (or foot) touches it from the time the flour is put into the mixers until the bread is baked.

There is an aerated bread manufactory in this city, and we can give our testimony to the uniform excellence of the bread.

MARRIED.

COLLINS—CHILDS.—In Lambertville, N. J., March 29th, by Rev. Henry A. Cordo, Benjamin M. Collins, M.D., of Penn's Park, and Ruth Anna Childs, of Centre Hill, both of Bucks County, Pa.

EAGLETON—POTTS.—On the 24th inst., by the Rev. Dr. May, James M. Eagleton, M.D., to Mary Anna, daughter of Samuel Potts, Esq., of this city.

PERAT—ECKFORD.—On Tuesday, the 29th ult., at St. Luke's Church, in this city, by the Rev. Dr. Howe, Marshall Sears Perry, M.D., of Boston, to Frances Henrietta, daughter of the late Henry Eckford, of New York.

DIED.

KITTREDGE.—In Hinsdale, N. H., on the 18th ult., very suddenly, Dr. B. F. Kittredge.

KNOX.—In Louisville, Kentucky, on the 28th ult., Wm. Morrow Knox, M.D., Surgeon Franklin Hospital, Tenn., youngest son of the late Rev. Dr. Knox, of New York City, formerly of Reading, Pa.

Vital Statistics.

OF PHILADELPHIA, for the week ending April 26, 1862.

Deaths—Males, 171; females, 122; boys, 82; girls, 67. Total, 293. Adults, 144; children, 149. Under two years of age, 83. Natives, 218; Foreign, 75. People of color, 17.

Among the causes of death, we notice—Apoplexy, 3; convulsions, 17; croup, 3; cholera infantum, 2; cholera morbus, 0; consumption, 49; diphtheria, 7; diarrhoea and dysentery, 5; dropsy of head, 3; debility, 17; scarlet fever, 10; typhus and typhoid fever, 10; inflammation of brain, 2; of bowels, 2; of lungs, 21; bronchitis, 0; congestion of brain, 7; of lungs, 3; erysipelas, 2; hooping-cough, 4; marasmus, 10; small-pox, 8.

For week ending April 27, 1861.....259
" " April 19, 1862.....303

Population of Philadelphia, by the census of 1860, 568,034. Mortality, 1 in 1938.7.

OF NEW YORK, for the week ending April 28, 1862.

Deaths—Males, 86; females, 80; boys, 108; girls, 94. Total, 377. Adults, 175; children, 202. Under two years of age, 126. Natives, 252; Foreign, 125; Colored, 10.

Among the causes of death, we notice—Apoplexy, 6; infantile convulsions, 19; croup, 7; diphtheria, 4; scarlet fever, 26; typhus and typhoid fevers, 10; cholera infantum, 0; cholera morbus, 0; consumption, 77; small-pox, 12; dropsy of head, 12; infantile marasmus, 21; diarrhoea and dysentery, 4; inflammation of brain, 6; of bowels, 14; of lungs, 24; bronchitis, 6; congestion of brain, 6; of lungs, 3; erysipelas, 0; hooping-cough, 5; measles, 3; 182 deaths occurred from acute disease, and 5 from violent causes.

For week ending April 29, 1861.....422
" " April 21, 1862.....596

Population of New York, by the census of 1860, 814,277. Mortality, 1 in 2779.

OF BOSTON, for the week ending April 19, 1862.

Deaths—Males, 31; females, 47. Total, 78. Natives, 56; Foreign, 22.

Among the causes of death, we notice—Phthisis, 13; cholera infantum, 0; croup, 1; scarlet fever, 7; pneumonia, 6; variola, 0; dysentery, 0; typhus fever, 0; diphtheria, 1; hooping-cough, 1; convulsions, 2.

Population of Boston, 1860, 177,902. Average corrected to increased population, 84.55.

Answers to Correspondents.

Dr. M. A. H., Mass.—We know nothing, practically, of the therapeutical uses of corn-silk. Any field of corn will furnish silk enough for a trial of its virtues, and "gravel" is a sufficiently common complaint to afford the opportunity. We should suppose that the silk ought to be collected just as it begins to dry on the ear, at which time it would not injure the corn.

Dr. A. G. E., Pa.—In the Clinical Reports of the Pennsylvania Hospital, published in this journal, propylamin has been strongly recommended in acute rheumatism. Advantage has been taken of this by interested parties, to advertise it as a "certain cure" for rheumatism in all its stages. The profession is not yet responsible for this claim. Use it and give your experience with it.

Dr. N. G. B., Ill.—We have sent you the Visiting List. Send us sixty cents when you send your subscription money. Give us a detailed history of the fatal cases you speak of, with post-mortem appearances, if possible.

Dr. N., N. Y.—To secure the *London Lancet* and *Reporter*, it will be necessary for you to send \$6. We can supply you with vol. vii. complete, soon.

What Atlas of Anatomy do you wish? Smith and Horner's is the best published in this country, that we know of. The Text Books of Anatomy, especially Gray's Anatomy, have excellent anatomical plates. The price of the former work is \$3, and of the latter \$1.